

APRIL 5, 1941

# Railway Age

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# Why — and How — Railway Employees Are Misinformed

The product the railroads have to sell—and, hence, the only source of the funds which they pay out in wages to their employees—has to meet the **test of the market place**. That is the controlling fact of the whole railroad position in these modern times—and the failure of so many to understand it undoubtedly explains most of the railways' difficulties. What is this "test of the market place"? It is simply the fact that the service which the railroads offer has to take its chances with competing services in getting customers—and that the customers are not swayed in making their choice by anything but the comparative prices and qualities of the services offered to them.

### The Market Doesn't Encourage Philanthropy

Excellent arguments—and others not so excellent—can be and are made as to why the railroads should provide "dismissal pay" for their employees; or why they should guarantee the jobs of employees on abandoned lines; or why they should use 5 men to do the work of 2 or 3 on a branch-line train; or why they should keep non-remunerative stations or trains in operation "for the convenience of the public"; or why they should give all employees vacations with pay. But when these arguments fail to take into account the cold fact that railroad service is and must be sold in a hard-boiled competitive market they disregard the most important fact controlling the total railroad payroll. When the railroad product comes into that market with its price marked up to include a lot of "social services" which are not included in the prices offered by competing agencies of transportation, the railroads simply lose a sale. And every sale they lose means that the funds they have available to carry out these lofty social objectives, and even to pay for efficient and needed labor, are thereby curtailed.

If the recent prediction of the National Defense Advisory Commission as to 1942 freight traffic does not awaken people in and around the railroads as to what the future—assuming continuance of present controlling policies—holds for them, what will it take to wake them up? The commission estimates that **total** traffic in 1942 will be greater than in 1929, but that **railroad** traffic in 1942 will be only 75 per cent of 1929. This estimate is supported by similar studies

made both by the Interstate Commerce Commission and the Bureau of Railway Economics, and by actual experience in the first quarter of 1941. How many people who are now hoping and expecting to be drawing salaries or wages from the railroads ten years hence are acquainted with this Defense Commission estimate, and appreciate its **significance to them personally**? Whose business is it to see to it that this estimate is widely disseminated and understood?

There is nothing so strange in the fact that the railroads' dependence on the hard-boiled judgment of the market place is not more widely known and understood. Until 15 or 20 years ago they did not have to submit to this unsentimental appraisal of their services and prices except to a very limited degree. There wasn't much transportation seriously competitive with theirs. The pipe lines for crude oil and the Great Lakes vessels were important, but they were serving predominantly in fields where the railroads had made little serious effort to compete; so their traffic represented no serious **inroads** into the revenues (and hence of the wage-paying ability) of the railroads.

### Traffic Now Will Not "Bear" High Rates

There is no necessity to review for *Railway Age* readers what has happened since then in the development of competing transportation facilities. It probably is worth while, though, to make a general statement about the present situation, which probably is not fully appreciated, namely: **Practically all railroad traffic is now subject to competition**. Immediately, such products as coal, steel, building materials and so on ("rail-bound tonnage") will be considered by some to be exceptions to that generalization. They are not exempt, however, because transportation costs form a large part of the delivered price of such commodities; and if railroad rates on them are too high consumers will choose sources of supply requiring a minimum of transportation. This class of traffic was always subject to competition of this kind—the competition of closer sources of supply with those more remote. The traffic upon which the railroads were formerly able to impose the costs of high wages and unremunerative services was "high grade" traffic (that is, traffic the transportation costs of which do not



constitute a large ratio of the delivered price). This is the traffic which the railroads have now largely lost; or upon which, if it is to be held, great reductions in rates must continually be made.

It is hardly too strong a statement to say that, nowadays, there is scarcely any traffic of which the railroads cannot get more if they will reduce rates (strategically, of course, where the competition is most severe); and scarcely any, either, where volume will not be lost if rates are increased.

The customer, as a customer, isn't concerned that the railroads have to pay maintenance and carrying charges and taxes on their fixed property, while their competitors do not. As a citizen, he may consider this condition unfair and uneconomic—but, as a business man subject to competition himself he has to take all the short-cuts to low costs for himself that his competitors take, or put himself out of the running.

#### **R. R. Sales Are Competitive, Their Costs Arbitrary**

Is it not significant that, at the very time when the services the railroads sell have come completely under the arbitrament of the market place, the carriers themselves should be called upon to a greater degree than ever to treat others in a manner quite contrary to that of the market place? Would the railroads have to pay pensions on the present scale in order to attract labor to railroad service? Would they have to put five men on a branch line train before they could get men to operate such a train or customers to use it? Would they have to pay a day's wages for two or three hours of work in order to get competent men to man their trains? Must they accord vacations with pay in order to continue getting enough employees?

To ask these questions is to answer them. **The railroads have to sell their entire product in a competitive market, but are not allowed the benefit of free competition in incurring the expenses necessary to place their own product on the market.** The result is a constant dwindling in the ratio of total transportation which is being handled by rail—and in consequence a constant dwindling in the amount of employment and opportunities for promotion which the railroads are able to offer to men who have dedicated their lives to the service of this industry.

Probably one of the principal criticisms of railroad management that may justly be made is the slowness with which railroad prices (i. e., freight rates) have been modified to meet competition when and where present railroad costs would permit. In the "traffic box" articles which have been appearing regularly in these pages for two years we have been trying to throw light on this matter of competitive pricing. During this period great progress has been made by the railroads in adjusting their rates to conditions; and more is in the offing (provided the I. C. C. consents). **Modernization of the price structure to meet competition insofar as railroad costs will permit is one of the greatest steps which can be taken for the benefit of**

railroad employees—because that step will protect their jobs. It is strange that this development has aroused so little interest among intelligent labor executives.

#### **How Can Job-Suicide Be Stopped?**

But there is more to the problem of meeting competition than just changing railroad price-making over to a competitive basis. With high costs arising from arbitrary working rules, from "dismissal pay," from the retention of unprofitable lines and trains in service, from pay for work not done, there is a definite limit beyond which the railroads cannot go in making prices attractive enough to hold traffic (and hence to protect jobs). If because of their inability to meet competition the railways have lost so much traffic since 1929 that they are now handling 25 per cent less than in 1929 and than they should be now, what is to prevent their losing another 25 per cent in the same way in the next dozen years? How would that affect the jobs and the chances of promotion of those employees who are now not more than 55 years old? How did the increases of costs and losses of traffic that reduced the average number of employees from over 1,700,000 before the depression to an average of 1,000,000 during the depression affect the jobs and chances of promotion of the 700,000 let out?

Everything done tending to cause increase in costs and loss of traffic darkens the future of half a million or more men who want to be working on the railroads 10 or 15 years hence; and some of whom hope by then to be occupying more responsible jobs. The things that are being done to the railroad industry today—largely because of inadequately informed employee-opinion—are comparable to a man who is eating up an inheritance. He lives high for a few years—and then is penniless.

#### **Union Technique Fitted to Bygone Conditions**

Railway union policy developed a technique—and a very successful one—during an era when there was little competition in transportation. It has continued and intensified that same technique in a period when conditions have wholly changed. To say that the unions have been slow to reorient themselves to new conditions is only to say that they have been human; the same has been true of railway managements. But it is impossible to meet new situations realistically, if the facts about them are unknown. And if railway union leaders and employees generally are as badly uninformed and misinformed as the public utterances of the leaders and the contents of most of the labor union press indicate, it is not surprising that the leaders adopt and employees accept policies not only inimical to the railways, but even more inimical to the employees, and to those who formerly were employees or would now like to be employees but are not.

In this space a few weeks ago we drew attention to the apparent belief of even so highly-placed a labor



executive as George M. Harrison that the railroad traffic of 1940 exceeded that of 1920—when actually freight traffic was 11 per cent less, passenger traffic was 50 per cent less, both freight and passenger rates were much lower and gross earnings were 30 per cent, or almost 2 billion dollars, less! And besides all this the railroads in 1920, in addition to their gross earnings, received 530 million dollars from the government under their wartime guarantees. Thus, in 1920, they had the equivalent of 2 billion 300 million more gross earn-

ings than in 1940. Perhaps Mr. Harrison is so badly informed because he reads the labor union press too much and the statistics of the Interstate Commerce Commission too little.

### Is Labor-Preying-on-Labor a Sound Policy?

The volume of railroad employment is a much more important measure of the success or failure of organized efforts to foster the welfare of railroad labor than the

## Truck Regulation—In Whose Interest?

The law makes it the duty of motor common carriers of property to "establish, observe and enforce just and reasonable rates, charges and classifications." It also requires the Commission "to recognize and preserve the inherent advantages" of transportation by motor carriers; to promote "economical and efficient service by motor carriers and reasonable charges therefor; to suspend and investigate motor carrier rates suspected of being unreasonable, and to prescribe reasonable rates for motor transportation."

*Reasonable* is defined by Bouvier's Law dictionary to mean: "Conformable or agreeable to reason; just; rational." The English courts have defined "just and reasonable" as meaning: "To the advantage of the customer." The power of Congress to regulate interstate transportation is derived from the Commerce Clause of the Constitution, which the Supreme Court has defined as follows:

"To regulate in the sense intended is to foster, protect and control, with appropriate regard for the welfare of those immediately concerned . . . and of the public at large. It includes the power to prohibit in cases where such prohibition is in aid of the lawful protection of the public. While it has no limitations other than those prescribed in the Constitution, it does not carry with it the right to destroy those limitations and guaranties which are placed in the Constitution and amendments."

How, under such law, can the motor common carriers in the Middle West justify their publication of railroad rates for truck transportation—when the railroad rates were designed before the advent of truck transportation to meet conditions peculiar to railroad transportation—not at the present time, but at the time when this system of rate-making was inaugurated?

These rates vary as much as 50 per cent on the same commodity for the same service. They vary as much as 200 per cent for the same service on commodities having the same transportation characteristics. Such rates do not reflect the "inherent advantages" of truck transportation. Instead they reflect the "inherent disadvantages" of the situation of 50 years ago when the railroads were forced to transport a lot of (light-volume, local) traffic to which they were not especially suited; and consequently had to cover the necessary expense, wherever they could, by charging rather arbitrary rates on traffic which could "bear" such charges.

What justification can be found in economics or the law for continuing a monopolistic approach to a rate situation where the physical condition of monopoly has, in fact, vanished? The practical

effect of such an anachronistic dealing with rates is to enable trucks to "pick and choose" the "cream" of the traffic and to leave the unprofitable "skim milk" for their competitors.

Such rates manifestly enable trucks to extend their operations far beyond the radius to which their comparative true economy would circumscribe them. Rates made on such a basis do not protect "the advantage of the customer," which the English courts define as being the meaning of "just and reasonable." They are not made "with appropriate regard . . . of the public at large," nor for "the lawful protection of the public" or do they appear to be within "those limitations and guaranties which are placed in the Constitution and amendments." They are not "conformable or agreeable to reason; just; rational"—at least, they do not fit any definition of those terms with which we are familiar.

The purpose of the truckers seems to be an indirect one. That is to say, what they are aiming at, primarily, is preventing the railroads from making rate reductions which they have in contemplation. If the truckers can succeed in tying their rates to the railroad structure, such dependent relationship might give them a presumptive right of intervention should the roads seek to modify their rates.

It is a clever stratagem, of the type known as "jockeying for position." As much as one may admire the skill of the individuals who thought this scheme up, true friends of the principles of free enterprise and of the success of the regulatory process in the transportation industry will prefer less cleverness and more forthrightness.

With all the technical improvements which have occurred in transportation in the past six or seven years, bringing potentially great savings in costs, some members of the shipping community do not see the joke in being forced to pay 10 per cent more for transportation than they used to pay. The time comes when even a good-natured dog gets a little tired of being wagged incessantly by a diminutive but super-clever tail.

Can either the trucking industry or the I. C. C. take any pride in the characterization which the T. N. E. C. has put upon the regulation of truck rates, viz.—

"In the railway industry, it was the original purpose of regulation to prevent monopolistic price increases by establishing maximum rates. In the trucking industry, it is the apparent purpose of regulation to prevent competitive price reductions by establishing minimum rates."

Can this charge be either successfully refuted or satisfactorily explained away?



average hourly, daily and annual wages paid; and the gross earnings of the railroads determine how many persons can be employed at any given scale of wages. If working conditions of individuals are improved only at the cost of a decline in jobs, that fact demonstrates that the improvement was secured, not merely, or perhaps primarily, at the cost of "capital" or the customers of the railways, but by one part of labor preying on another part. Certainly, such depredation of some workers on other workers is not the purpose which affords justification for labor unionism; and if labor or the general public realized that this is the way union policies work out, there would be a general demand for a change in these policies.

As an example of the kind of information disseminated among railway employees, we refer to the optimistic reports regarding current railway earnings now appearing each week in the weekly paper "Labor," which is published by the railway labor unions. It is a fact, we rejoice to say, that railway earnings, both gross and net, recently have greatly improved. Gross earnings in January were 8 per cent larger than in January, 1940, and net operating income of almost 62 million 400 thousand dollars was 37 per cent greater and at an annual rate of 4.55 per cent—the first month for which an annual rate of over 4 per cent has been reported since October, 1929. Reports of earnings are published prominently in the union press when such increases as these are occurring; but we do not recall a similar display of figures having ever been made in the union press when earnings were diminishing. The so-called "profits" (net operating income) of the railroad industry in the entire ten years ended with 1940 averaged less than 2 per cent on property investment,

as compared with about  $4\frac{1}{3}$  per cent during the entire preceding decade. We challenge any labor leader or labor editor to show that this information has ever appeared in any labor union publication. Furthermore, these so-called railroad "profits" are not profits in any true sense because they include money that must be paid in interest to bondholders before stockholders can get any return.

### Duty of Managements to Employees

The reports published in the union press seldom contain downright misstatements. They create their false impression by giving all the good news and omitting all the bad news about railway results. If actual conditions in the railroad industry were as favorable as the impression regarding them thus conveyed to employees we should willingly concede that the railways could afford to make improvements in working conditions. As railway employees have few, if any, sources of information regarding the situation of the carriers except labor union publications, it is no mystery why they usually hold inaccurate and dangerously optimistic opinions regarding the health and prospects of the industry upon which their jobs depend. If they are ever to be correctly informed, the information will have to be disseminated among them by railway management. This is a job that greatly needs to be done in the interest of the railroad industry and of every individual railway, its security owners and its employees. It is a job that, as far as we know, never has been well done on any railway; and it has never been done at all on most railways; or on behalf of the railway industry as a whole.

### Gloomy Reading for Radicals Who Think They Are Getting Us Into a War for World Socialism

It would . . . be easy to quote passages from current writings and manifestos by left wing 'intellectuals' which point to the complete socialization of Britain as the present and post-war policy of the British Labor party. But anyone who based his views of future British policy upon the vaporings of these left-wing crusaders would be making a profound mistake. . . . It is the British trade unionists who mainly finance the Labor Party and a more conservative set of politicians in practice it would be difficult to find. Whatever regime Britain evolves for itself after the war will be based upon empiricism and common sense and not upon Marxian theory. As for the suggestion recently made in America that British Socialists might make another war after this one to impose Socialism on the Continent of Europe, this shows a complete misunderstanding of British character. . . . As a Parliamentary lobby correspondent of long experience recently expressed it, there was never a time in the last 25 years when militant socialism was more moribund in Britain than today.

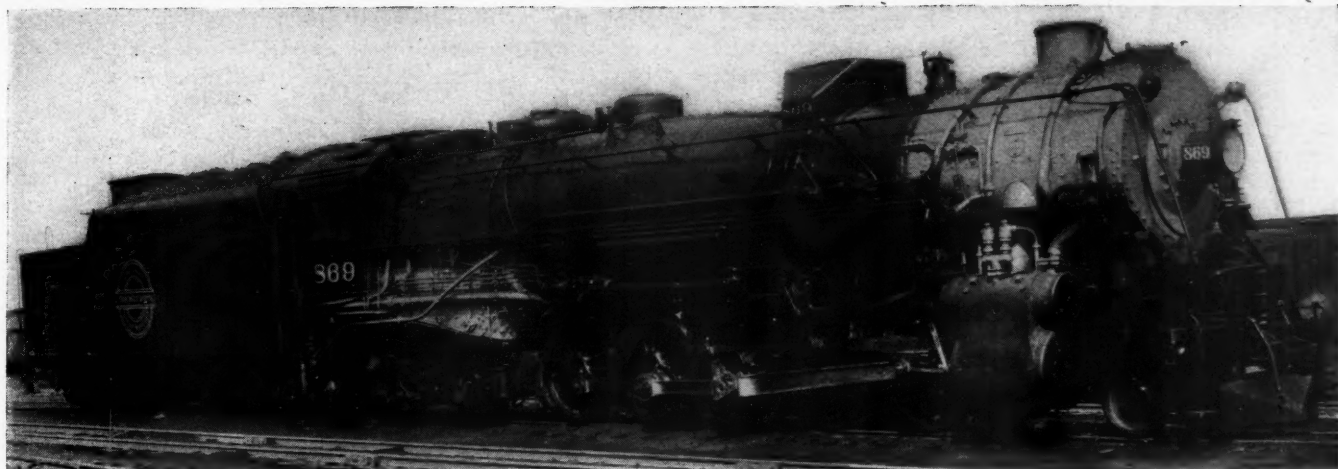
"Mr. Bevin, the transport workers' trade union leader, has for many years been an advocate of the nationalization

of all means of transport. But it is not he today, as Minister of Labor and a member of the war cabinet who is propounding such a scheme, but Sir Ronald Matthews, chairman of the London & North Eastern Railway. In his speech at the annual meeting he expressed 'my earnest hope that the government will at the appropriate time—and I feel that time is very near, if, indeed it is not already here, set up a National Transport Committee, fully representative of every interest concerned, whose duty it will be to knit the transport facilities of the nation into a closely coordinated whole.'

"This sounds very much like government control of transport if not actual nationalization. Sir Ronald, however, visualizes a certain amount of freedom of enterprise because he laid down three principles for the committee. First, that no one form of transport should be subject to restrictions and regulations which are not common to all other forms. Secondly, that each form of transport, as far as possible, should carry the traffic for which it is best adapted and which it can handle most economically. And thirdly, that there should be a fair and reasonable return on investment. . . ."

*From a Report from London by G. V. Ormsby,  
Published in the Wall Street Journal.*





C. G. W. Locomotive with Notably Improved Riding Qualities

## C. G. W. Freight Power Improved

Thirty-six locomotives of 2-10-4 type are equipped with lightweight rods and cross-balanced Baldwin disc wheels for smooth riding at higher speeds

**I**N 1930, the Chicago Great Western placed in service 36 locomotives of the Texas or 2-10-4 type. Twenty-one of these, Nos. 850 to 864 and Nos. 880 to 885 inclusive, were built by the Lima Locomotive Works, and the remaining fifteen, Nos. 865 to 879, by the Baldwin Locomotive Works. The 36 locomotives were divided into three groups, designated respectively as Classes T-1, T-2 and T-3, the principal dimensions of all being alike and the groups differing chiefly in certain equipment details.

In general design, these locomotives were typical of the period in which they were built. They had 29-in. by 32-in. cylinders and driving wheels 63 in. in diameter. The boiler had a grate area of 100 sq. ft. and the steam pressure was 255 lb. When working in full gear, cut-off took place at 62 per cent of the stroke, the resulting tractive force being 84,600 lb. All were equipped with boosters, giving a maximum starting tractive force of 97,900 lb. The average weight per pair of driving wheels was approximately 60,000 lb.

The driving wheel centers of these locomotives were of conventional spoke design, and the rods were of carbon-vanadium steel. On the Baldwin locomotives, the main rod was of I-section with a web 1-in. thick and flanges 5-in. wide, while the extension connecting the third and fourth pairs of driving wheels had a rectangular section measuring  $6\frac{3}{4}$  in. by  $2\frac{1}{8}$  in. The wheels were statically balanced, and approximately 50 per cent of the reciprocating weight was balanced in accordance with the accepted practice of the time. All of the reciprocating balance, however, was placed in the front, back, and two intermediate pairs of coupled driving wheels, the main wheels (third pair) being considerably deficient in revolving balance. This arrangement was satisfactory at moderate speeds, but when freight schedules were speeded up and the locomotives were operated in faster service, it resulted in rough rid-

ing and proved hard on the track, increasing maintenance costs of both track and locomotive.

With a view of eliminating these difficulties as far as possible, the Chicago Great Western, early in 1937, began to replace the main wheel centers of the Class-T locomotives with Baldwin disc centers. This center uses triangular sections in the rim and adjacent to the hub, not only strengthening the wheel in these respects, as compared to the spoke form, but reducing the size of the axle and crank pin hubs, providing more space for the counterbalance and also lessening the amount of revolving weight that must be balanced. These are important advantages in a large locomotive having wheels of moderate diameter. The new wheels for the Class-T locomotives were cross-balanced, the balance weight being offset  $9\frac{1}{2}$  deg. The centers are of high-tensile steel, furnished by the Standard Steel Works Company.

In order to improve the locomotives further, the application of lightweight main and tandem rods was begun in 1939, with most satisfactory results. The rods are quenched and tempered, the material being low-carbon nickel steel having a yield point of 80,000 lb. per sq. in. and an ultimate strength of 105,000 lb. The new main rod is of I-section with a  $\frac{1}{2}$ -in. web and flanges 5 in. wide, while the extension, also of I-section, has the same thickness of web, with a  $3\frac{1}{2}$ -in. flange.

### Reduction in Rod Weight and Dynamic Augment

In the original rods, each main rod reciprocating section weighed 665 lb. and the revolving portion 967 lb., or a total of 1,632 lb. Corresponding figures for the new heat-treated alloy-steel main rod are 517 lb., 764 lb. and 1,281 lb., respectively. Each of the original extension tandem rods weighed 418 lb. on the front end and 418 lb. on the back end, or a total of 836 lb. Corresponding figures for the new tandem rod are 312 lb.,



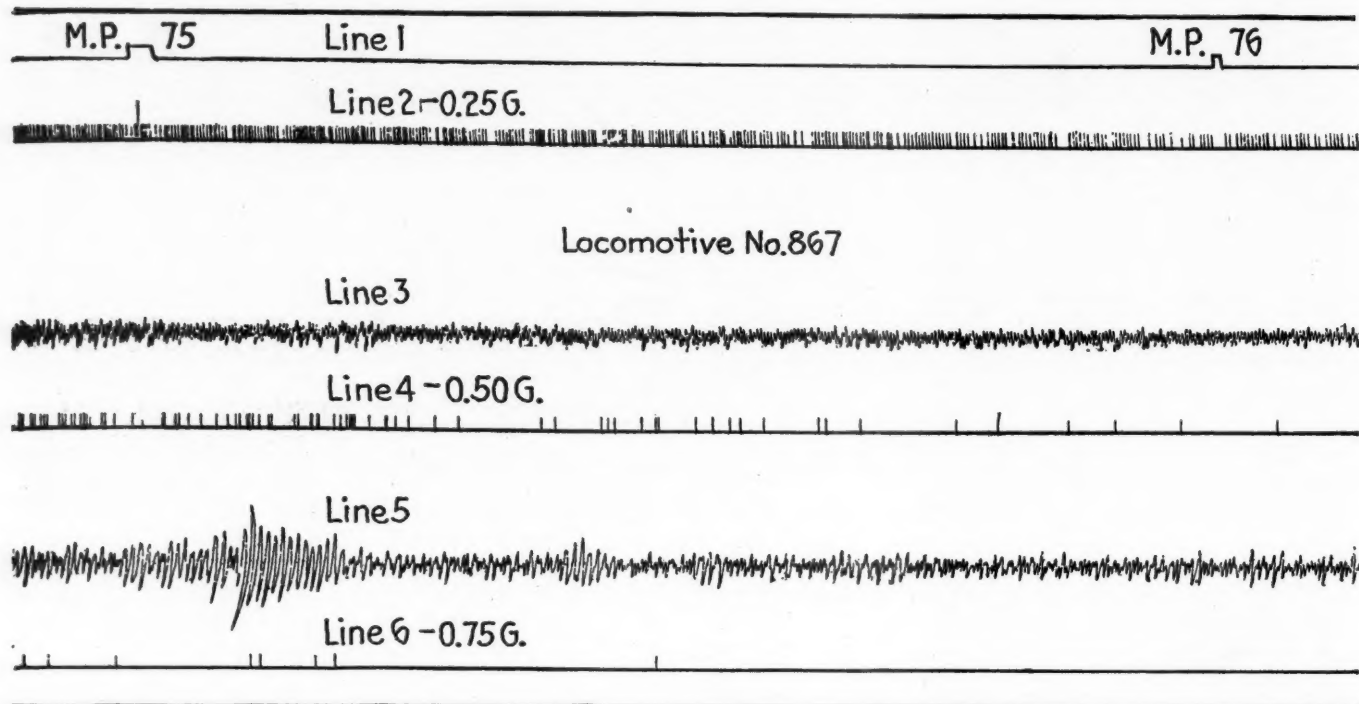
331 lb. and 643 lb. This gives a total revolving weight of main and tandem rods on each main pin of 1,385 lb. with the original rods and only 1,076 lb. with the new rods, a saving of 309 lb., per side.

Even more striking is the reduction in dynamic augment which has been effected by the application of the cross-balanced disc wheel centers and lighter rods. The calculated figures are shown in the table.

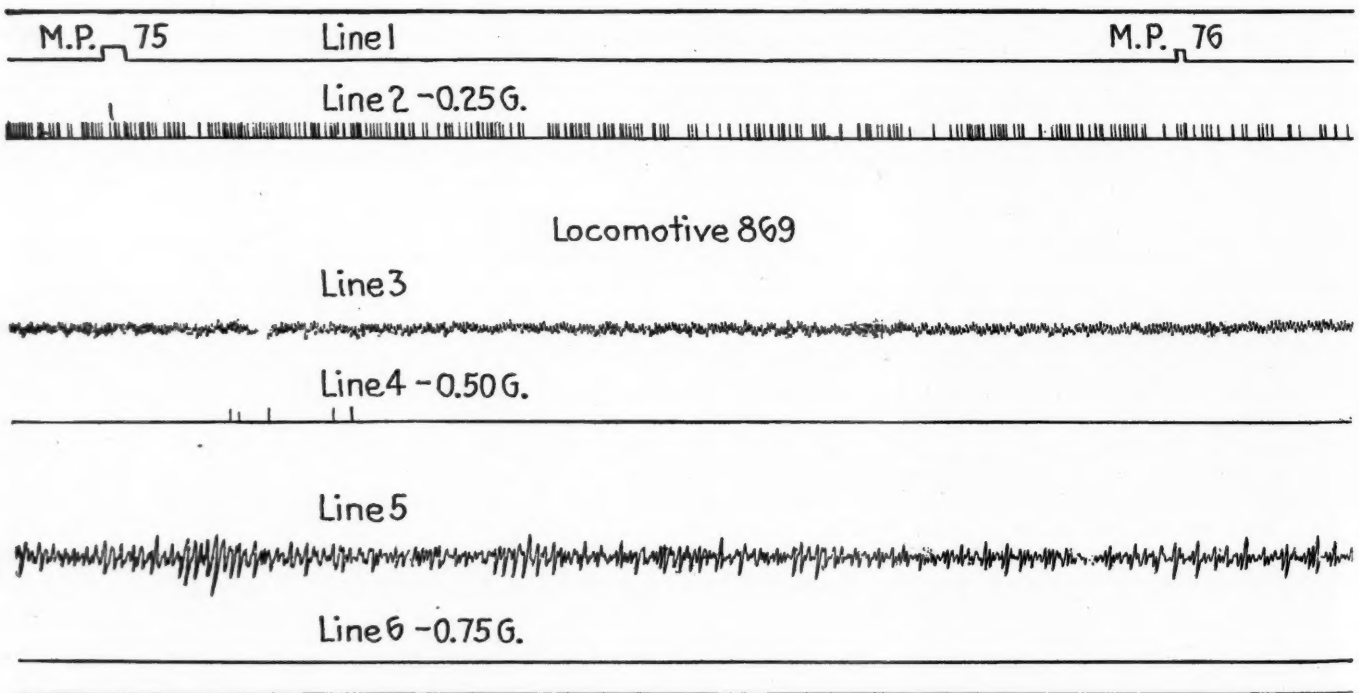
This shows that, as originally built, the dynamic augment at a speed of 60 miles an hour exceeded the static

load, thus tending to lift the wheel from the rail. As a result, kinks would often occur in track that had just been re-surfaced. Since the new rods were applied, however, kinks in the track have disappeared; moreover the track maintains its surface and line much longer than it formerly did, and the locomotives hold up better when operating at high speed.

A further indication of the improvement effected by the application of new wheel centers and rods is given by the results of tests run on the Illinois division be-



Locomotive 867 as Originally Built—Speed About 49 M. P. H.



Locomotive 869 with Lightweight Tandem Rods and Cross-Balanced Baldwin Disc Wheels—Speed About 49 M. P. H.

Comparative Impactograph Records of Chicago Great Western, Locomotives Nos. 867 and 869—Lines 3 and 5 Show Longitudinal Surge and Vertical Vibration



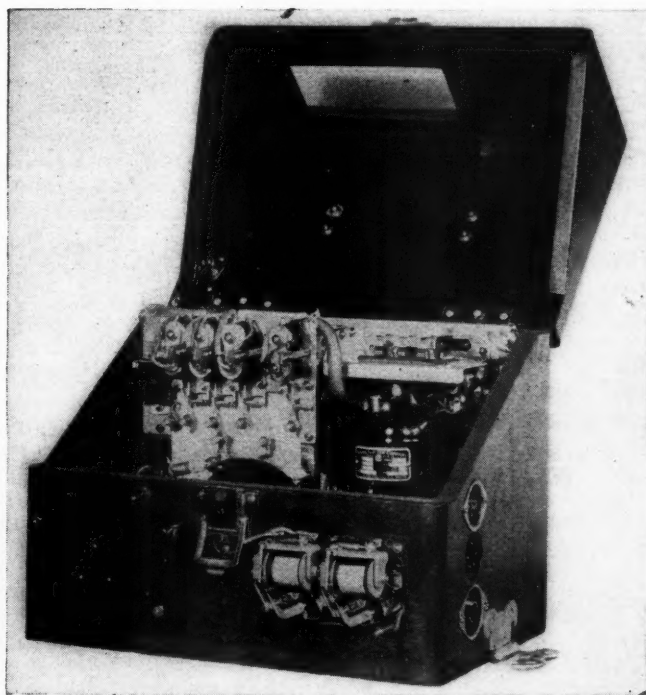
tween Lombard, Ill., and Pearl City, using a Miner Impactograph which recorded, on a tape, a graphic story of what was taking place. This device, which was loaned by W. H. Miner, Inc., Chicago, is shown in the accompanying illustrations. The principal shock-meas-

Comparative Calculated Dynamic Augment in Pounds at Various Speeds

Speed, m.p.h.	Old Rods and Wheels	New Rods and Wheels
5	238	19
10	950	75
15	2,140	169
20	3,800	300
25	5,935	469
30	8,530	675
35	11,630	918
40	15,200	1,200
45	19,230	1,520
50	23,770	1,875
55	28,800	2,265
60	34,200	2,700

uring part of the Impactograph consists of four five-pound weights suspended on point bearings on pantograph arms, permitting each weight to move a small distance vertically with practically no friction. The weights are held against the top of the frame by springs which can be adjusted to various pressures. An electrical contact mechanism is mounted above each weight in such a manner as to make and break contact when the weight moves down a distance of .005 in. This is recorded by an electric stylus on a moving tape, driven by a small motor and conveniently mounted in instrument box.

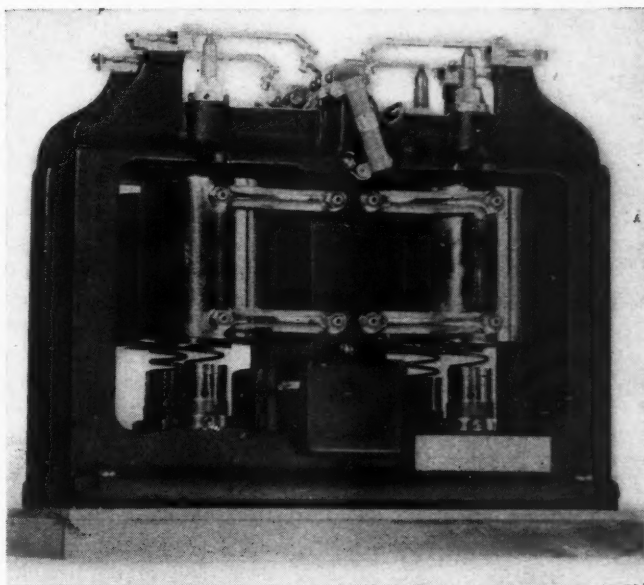
The weights in the Impactograph are adjusted as follows: A calibrating weight, which equals the particular "unit of gravity" that it is desired to measure is placed



The Recording Instrument Box

on top of the principal weight, and the spring is then adjusted to the point where it just brings the weight in contact with the frame. It is evident that, when the calibrating weight is removed, the spring will press the principal weight against the frame with a force equal to the calibrating weight.

In the tests on the Chicago Great Western, the springs were adjusted to forces of 25 per cent, 50 per cent and 75 per cent gravity respectively. A 25 per cent gravity shock is one in which the resultant force is momentarily 25 per cent greater than the weight which produces the force. Thus, if a weight of 100 lb. were resting on the floor and a 25 per cent shock were recorded, the pressure of the weight on the floor would be momentarily



Miner Impactograph Shock-Measuring Instrument

increased to 125 lb. A similar explanation applies to the values of the 50 per cent and 75 per cent gravity shocks.

In addition to having an electric stylus which records the gravity shocks, the instrument also records vertical vibration and longitudinal surge of the locomotive by means of two pendulums swinging in planes at right angles to each other. These recordings have no arithmetical value but simply indicate the relative movements which are taking place.

#### Improved Riding Shown By Impactograph Tests

In the Chicago Great Western tests, the Impactograph was bolted directly to the cab floor and thus registered shocks transmitted to the locomotive frame. Locomotive 869, equipped with disc-type cross-balanced main wheels and lightweight main and tandem rods, was run in comparison with Locomotive 867, which had its original centers and rods. Each locomotive had made slightly over 10,000 miles since the last shopping. On a 20-mile stretch of track, the Impactograph showed results as follows: 25 per cent gravity shocks, Locomotive 867 had 5,536 shocks and Locomotive 869 only 3,423 shocks; 50 per cent gravity shocks, Locomotive 867 had 1,599 shocks and Locomotive 869 only 61 shocks; 75 per cent gravity shocks, Locomotive 867 had 123 shocks and Locomotive 869 no shocks.

The accompanying reproductions of tape sections show the records made by the two locomotives over a short track section at practically the same average speed, namely 48.5 to 49.7 miles an hour. Line 1 records the mile posts; Lines 2, 4 and 6 indicate the number of 25-, 50-, and 75-per cent gravity shocks respectively; and Lines 3 and 5 show the longitudinal surge and the vertical vibration of the locomotive.

Comparing the two tape sections, the much smaller number of 25 per cent gravity shocks with Locomotive



869 than with Locomotive 867 is apparent. Even more striking is the reduction in 50 per cent gravity shocks to only 5, and the entire elimination of 75 per cent gravity shocks with the improved locomotive for the particular tape section shown. Similarly, the better riding qualities of Locomotive 869 are indicated by the reduced amplitude of longitudinal surge and vertical vibration. The vertical vibration is particularly violent in the case of Locomotive 867 at a point near Mile Post 75 where it will be observed that there were two 75 per cent gravity shocks with Locomotive 867 but none with Locomotive 869.

#### Other Improvements in the Locomotives

Locomotive 869 has all of the latest improvements which have been applied to Texas-type locomotives on the Chicago Great Western since they were purchased; i. e., lightweight main and tandem rods, Baldwin disc-type main wheel centers, multiple-bearing guides and crossheads, improved valve-gear frames, one-piece steel main cylinders, combustion-chamber Syphon, low-water alarm, larger-capacity mechanical lubricator, and continuous blow-off system.

The C. G. W. program for the application of new cylinders, guides, crossheads, and larger mechanical lubricators has not yet been completed, but the majority of the locomotives are now equipped and it is anticipated that the remainder will be equipped some time this year.

In carrying on the Impactograph tests described in this article, the Chicago Great Western received valuable assistance not only from W. H. Miner, Inc., but from the engineering department of the Baldwin Locomotive Works, which collaborated in conducting the tests, assembling test data and analyzing the results.

## Road-Rail Units Capture Milk Traffic For N. Y. C.

**U**SE of co-ordinated railroad-highway handling equipment plus rate revision has brought back to the New York Central a single allotment of milk averaging 14,000 gal. daily which formerly moved by truck between Lowville, N. Y., and New York, 295 mi. by rail. On March 2, Muller Dairies, Inc., of New York, initiated railroad movement of milk originating at a track-side co-operative creamery in Lowville by leasing nine 4,000-gal. demountable tanks and six special flat cars from the National Fitch Company. This equipment is operated by the railroad company as privately-owned cars under a wheelage allowance plan. A

description of Fitch car, motor truck and tank equipment appeared in the *Railway Age* of December 23, 1939, page 973.

Since the Muller dairy plant is located approximately a half mile from the railroad milk platform at 130th street, New York, the railroad could not capture the traffic with standard tank or can cars requiring platform loading of transfer trucks. But introduction of the co-ordinated equipment by which one driver may transfer a tank from railroad car to truck-trailer in about 3 min. solved the physical problem. A general downward revision of rates on milk conveyed in tanks or tank cars made effective on the road on September 23, 1940, priced the movement so as to compete successfully with highway haulers. Present rate is 2.6 cents per gal. for the 295 mi. haul.

Four 4,000 gal. tanks are used each day for Muller traffic from Lowville. Two of these are conveyed on one 52-ft. flat car and two on two 36-ft. cars. Eight tanks are assigned to cover the entire service while one spare is kept at the 130th street yard. Two cars are handled in passenger service leaving Lowville at 8:09 a. m., are set out at Harmon (at the same time that locomotives are changed) and are hauled to 130th street, New York, in an "express pull," arriving about 6 p. m. The third car is handled in a milk train leaving Lowville at 11:30 a. m. and arriving 130th street at 10:30 p. m. The empty tanks are returned on a milk train leaving 130th street at 8 a. m. and arriving at Lowville on a local freight from Utica at 2 a. m.

Illustrative of the effect of competitive rates and furnishing of proper service in regaining from the trucks highly-competitive short-haul milk traffic is the daily movement of eight 6,000-gal. standard tank cars of fluid milk from various points in the upper New York state milk-shed to the Canton milk-products plant of Sheffield Farms. Inasmuch as this is essentially a gathering job along two sides of a triangle for relatively short-hauls to a common point, it was a natural field for the trucks. But the railroad determined that if it was to receive longer-haul milk traffic to major consumption points like New York it would have to furnish also service for shipments destined to milk-products plants in the producing area. This for the reason that producers shipping by truck to local plants in periods of heavy milk output—cows have seasonal production curves—tend to use them also for long hauls to urban consuming points as well.

Hence the Central recently instituted competitive rates for the Sheffield gathering movement and handles full tank-car loads from producing points to the milk-products plant in local freight and mixed trains. Hauls in this service range from 20 mi. to 94 mi. All of the traffic formerly went by highway.



Photograph by C. E. Black, superintendent of milk service, N. Y. Central

Four 4,000-gal. Demountable Tanks are Loaded at the Lowville (N. Y.) Creamery Daily



# Who Is U. S.'s Worst Enemy?\*

Not Hitler, but the hitlerism of our own people is the big threat to our liberty and prosperity

By C. E. Johnston

Chairman, Western Assn. of Railway Executives

**I**N using the term "American System," I refer, in the broadest sense, to the system which made America great. All of us know in some way what that term means. Men phrase it differently. Some view it in one aspect and others in another. But all reach the same conclusion, summed up in just two words, liberty and equality. Springing, perhaps, from the Magna Charta and the Bill of Rights, vitalized and proclaimed to the world in the Declaration of Independence, formalized in the adoption of the Constitution, attained and maintained through war and sacrifice and suffering, the American System finds its being in freedom and in fairness.

That was the system which civilized a wilderness, which made a continent into one people, and which built America into the greatest nation in the world. Yet, despite its glowing record of achievement, unmatched elsewhere upon this earth, that system is now more or less in disrepute. As regards the railroad industry in particular, the American System has now in many respects been abandoned. In no other industry has the pattern of our changing philosophy of government been so clearly marked.

That the American railways were and are the products of the American System of free enterprise admits of no argument. The process of creating our railroad system was by self-reliant private enterprise. Certain bargains were made with the government, whereunder land was exchanged for reductions in railway rates and fares, but these bargains redounded to the benefit of the government. The rails of civilization were laid across mountains and deserts and plains by the vision, the courage, and the tenacity of our forefathers, the men who built America in the true American way.

## Monopolistic Practices Create an Offsetting Evil

For half a century and more this way stood unchallenged in the railroad industry. Then came the shadow. Inequities, injustices, and excesses are the inevitable sequence of any monopolistic operation, and it was felt desirable to curb them through the power of the federal government. From such decision there could be little dissent. Yet, admitting the excesses resulting from the system of unchecked private enterprise, the fact remains indelibly engraved upon the pages of history that no other system anywhere had ever produced, in so short a time, over so great an area, the moral, the social, and the economic benefits that this system of private enterprise produced.

The shadow of change lengthened and darkened. The railroads, because of the very magnitude of their operations, became the nation's number one guinea pig for sociological experimentation. Burdensome laws and regulations, burdensome taxation, uncontrollable elements of operating costs, and unfair competition have combined to weaken the financial structure supporting

our industry. The foundation of the railroad business has been undermined by the vicious attack of these currents. Little is being done to stem them.

Our governmental policies have undergone a radical change, particularly in the last decade. There have been equally great changes in principle. Our policies have changed from those of private enterprise and individual initiative to those of federal paternalism—the control of the governed by the government. As an inevitable result, our principles have been perverted from those of democracy to those of socialism and autocracy.

## Do We Hate Selfishness Only as a Proper Noun?

We are appalled today at the horrors of what national selfishness may do to the world. That national selfishness—imperialism, as it may be termed, whether it be Nazi, or Fascist, or Communist,—has for its objective the increase of the resources, the wealth, the power, and the authority of the imperialistic nations. And these nations seek their objective of increased wealth in the oldest and easiest way in history. They do not seek to add to the wealth of the world; they seek its redistribution. We are doing, on a smaller scale, the same thing within America. Unbridled national imperialism has thrown the world in chaos. But individual imperialism, corporate imperialism, group, class, and sectional imperialism—seeking increased power and wealth not by earning them but in the far easier way of taking them from others—have worked almost equal havoc to our democracy.

In our own little imperialisms, we have thought, first, of ourselves and our families, then of our jobs and our pay, then, perhaps of our company, then of our industry, then of our city, and then of our state. If we had time and energy still remaining, then perhaps we have thought a little about America. But few have thought through the entire list. Most of us have stopped with ourselves and our families and our pay checks.

Our thoughts in this regard have resulted in pleas to, or demands upon, the government for special privileges. We tried to change, and succeeded in changing, the rules of the game so as to make it easier for us to score. We have no reason, therefore, to be surprised now to find that the nature of the game has changed.

## The Umpire Now Takes a Hand in the Game

With these rule changes calling for active assistance from the umpire, for one side or another, we have lost, in large measure, one of the fundamental American virtues, that of self-reliance; the ability to stand squarely upon our own feet and meet with our own intelligence, our own skill, and our own strength all problems which may confront us. In short, we have lost the American System.

Take the record of the 'twenties and before. Is competition worrying us? Let's have a bill passed that will

\* Abstract of address made by Mr. Johnston to the Pacific Railway Club. He explained that he was speaking as an individual and not in behalf of the railroads which he serves.



help us or will curb our competitors, or, best of all, that will do both at the same time. Put a higher tariff on imports from abroad. Let's appeal to the Interstate Commerce Commission for a reduction in freight rates. Let's put the heat on for more highways and improved inland waterways, so that we may ship our goods at less than cost, letting the public pay a good part of our transportation bills, while we retain the benefits, not passing them on to the consumer. Even before the depression this tendency was well-marked and growing. We were losing our self-reliance. We were counting more and more for our success upon favored treatment from the umpire.

With the depression, the process was accelerated. No more was our dependence confined to special legislation and to subsidy demands that largely could be met out of current government revenues. The sky was now the limit, not only in special legislation and subsidies, but in direct financial payments as well. We not only became more and more dependent upon government—we also mortgaged our future, even unto the third and fourth generation.

Hitler has shown us nothing new. He has merely applied, by force and on a broader scale, some of the policies which, peacefully and within our borders, we have followed for years: Demands for more wealth and power, backed by intimidation and threats. Every pressure group in America has used this technique successfully for years. Individuals, groups, classes, corporations, sections and others who, while giving lip service to our American system of private enterprise, have sought such preferential government treatment, subsidy or socialistic action as would directly help them or their interests, without regard for the other fellow, have been most effective Fifth Columnists in the sabotaging of our economic structure.

Appeasement? Every measure that has been enacted, every ruling that has been made, every action that has been taken—not because such measure or ruling or action was right and beneficial to America, but because of threats and intimidation, has been appeasement in the highest degree.

The railroads seek no favors, no subsidies. But self-reliant as we are, we have been forced to the sad but inevitable conclusion that self-reliance cannot compete successfully and forever with special privilege and with subsidy. How often have we been between the millstones of pressure and appeasement? How often, when we have been forced to seek rate increases, have we seen arrayed against us those self-same gentlemen who have most loudly blamed "the government" for undermining the "profit system?" How often have we seen other staunch defenders of democracy lobby for inland waterway and super-highway appropriations, quite willing to sacrifice the greatest private industry in the nation to their own selfish desire for subsidies? How often have we seen placed upon us, even by organizations in our own railroad family, expensive restrictions and unjust burdens of added cost which render intolerable an already difficult situation?

When will we learn, if ever, that lip service to the cause of democracy is a stupid, cynical and lying sham, when our actions deny our words? When will we learn that the principles of democracy must be practiced, and not merely preached? We will have to better control our individual selfishness, we will have to yield up special privilege, we will have to get along without subsidy. We will have to live up to principles, instead of merely praising them publicly and denying them privately. No other principles in the world have ever guaranteed such rewards to those who observe them, as do the principles of the American System.

## Referee Awards Double-Pay Claim Which Was Never Presented to the Mulcted Railroad

**I**MPORTANT Potomac yard of the Richmond, Fredericksburg & Potomac (adjacent to Washington, D. C.) has two classification humps. One—the northbound—is equipped with car retarders; the southbound hump is not. On certain days between June 23, 1931, and September 1, 1933, traffic was not sufficient to keep both humps occupied, at which time car retarder operators were assigned to work both humps, replacing switchtenders employed in throwing ground switches.

These switchtenders presented to the National Railroad Adjustment Board a claim for a day's pay for each day they did not work, while the car retarder operators were throwing ground switches. In addition, a claim was also presented in behalf of the car retarder operators for one day's pay at switchtenders' rate, in addition to their regular pay as car retarder operators, for each day when they did any of the work customarily performed by switchtenders. Carrier and employee members of the board dead-locked and the cases were assigned to Referee Paul W. Richards who sustained the claims in behalf of both groups of employees. Under his award for the first claim, the railroad paid a total of \$2,064.88, distributed among 11 switchtenders. For each day not worked, claimants received the basic day's pay at switchtenders' rates of \$5.07. (This was reduced to \$4.56 for claims arising during the period when the nation-wide 10 per cent payroll deduction agreement was

in effect.) Under award for the second claim, the railroad paid \$2,226.22, distributed among 14 car retarder operators. For each day on which they performed switchtender's work, claimants received \$5.07 (subject on certain dates to 10 per cent deduction above). These payments were in addition to the basic wage of \$7.94 per day which the claimants had already received as retarder operators, so that for each day on which they were assigned to ground switches, operators were ultimately paid a minimum of \$13.01.

The referee's awards, in effect, saddled punitive payments on the railroad for work actually not performed and ignored the "plain provisions" (see below) of agreements with the employees covering services of car retarder operators. But more controlling than this is the fact that the second claim (i. e., for payments to retarder operators) was never presented to the railroad at any time, but was shoved *ex parte* by the Brotherhood of Railroad Trainmen into the adjustment board mill in August, 1936, more than five years after the alleged basis for the claim arose. The railroad was never even given an opportunity either to allow or deny the claim.

These points are explained fully in the railroad's submission, which was made part of the record in the case. As there set forth, the scope of service of retarder operators is specifically provided for by Rules No. 4 and 6 in the agreement of the Indiana Harbor Belt railroad



with its trainmen covering car retarder operators of January, 1925 (these rules covered the first important installation of car retarders in the country and were adopted by a number of other roads—Ed.), which rules were made effective in the Southeastern territory by the mediation agreement of February 7, 1927.

Rule 4 reads: "Car retarder operators will, when requested, perform any of the work of a switchman or conductor during the day's work."

Rule 6 reads in part: "Car retarder operators may be required to work both humps either as retarder operators, or switchmen, or both."

These rules specifically make it a part of the duties of retarder operators to perform any of the work of switchmen when requested to do so, and as the railroad's representatives declared in oral hearing, "We do not take it that anyone can seriously argue that throwing of ground switches in connection with yard switching operations is not a part of the duties of any yardman, whether he be called conductor, foreman, helper, brakeman, switchman or switchtender." As a matter of fact, the B. R. T. committee, in its submission, failed to cite any schedule rule to sustain its contention that car retarder operations are entitled to an additional day's pay for switchtender services. Nevertheless Referee Richards found that there is in these rules "no fair intendment that retarder operators may be used in derogation of seniority rights of switchtenders."

Carrier members of the First Division (of the Adjustment Board) wrote a vigorous dissent. In effect, this finding, they contended, "has held that a former switchtender must be paid a day's wages on the presumption that he had by some manner or means acquired the exclusive right in perpetuity to the operation of the particular switch or switches which he had formerly been delegated to handle." In addition, they wrote, the finding does violence to the function of railroad management, and submitted that "there is no rule of contract or one of conduct to justify any such distinction . . . and the findings and award . . . do violence to the accepted right of management to create or abolish positions according to the needs of the carrier's service." The inference is drawn from the finding "that a carrier is under the necessity of 'negotiation and agreement' with someone before it can exercise its managerial function of abolishing a given position. . . ."

This switchtenders' claim had previously been presented to the old Train Service Board of Adjustment for the Southeastern region (supplanted by the present Adjustment Board in June, 1934) whose decision (docket 1101, dated May 22, 1934) remanded the case to disputant parties and relinquished jurisdiction. More than two years later the same claim was revived and presented by the Brotherhood of Railroad Trainmen to the First division, National Railroad Adjustment Board. During all the time in which this claim was being considered both prior to and during meetings of the old adjustment board, no mention of the forthcoming second claim (pay for retarder operators) was made or was it ever considered in any grievance conference. It was apparently a profitable after-thought.

The referee's award in this latter case drew an especially sharp dissent from carrier members. They repeated their assertions of the former case that no breach of contract was committed by the road in assigning retarder operators to combination service. But, aside from this, they maintained that the division was without authority to assume jurisdiction, since no claim had ever been presented to the railroad's officers (and has not been *even up to the present time*).

Pointing out that procedural rules of the Adjustment

Board make necessary compliance with certain sections of the amended Railway Labor Act dealing with steps which must be taken before a "dispute" shall be eligible for adjudication, the statement of dissent charged that the majority (i. e., the referee's) decision was contrary to the "plain provisions" of these sections, because:

(1) Case was not "pending or unadjusted" on June 21, 1934, within meaning of Section 3—First (1).

(2) Petitioner did not handle claim "in the usual manner up to and including the chief operating officer of the carrier designated to handle such disputes" as required by the Act.

(3) "No conference or discussion was had in accordance with this dispute, as clearly contemplated by the Act (Section 2, Second) and procedural rules of this board. In fact, this dispute has never been presented to the carrier."

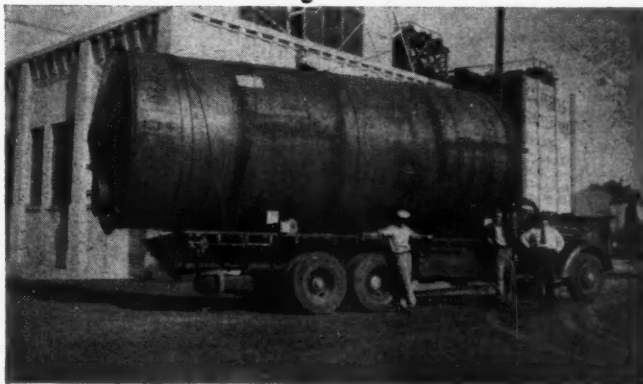
They concluded that "the majority's complete disregard of the carrier's dismissal plea in this case is a serious trespass of the jurisdiction of this division."

The pursuit of punitive payments in these two cases by the Brotherhood of Railroad Trainmen is a curious irony. The decisions which that organization succeeded in obtaining for its members definitely negate the plain intent of Rules 4 and 6 of the Indiana Harbor Belt agreement. These rules were concessions which the Brotherhood agreed to when it fought to gain control of retarder operator jobs for employees under its jurisdiction when the I. H. B. opened the country's first major retarder installation. It will be remembered that the question then arose as to which class of employees logically had the right to bid in on retarder operators' jobs—telegraphers or train-service employees. The B. R. T. got their cake. Now they want both to eat and to keep it.

For Reader's check:— (1) N. R. A. B., First Division, Award 5002, Docket 3396. Respondents—Brotherhood of Railroad Trainmen, Richmond, Fredericksburg & Potomac. (2) Award 5027, Docket 3397. Respondents—same.

[The awards here discussed were made by Paul W. Richards. A justice of the Supreme Court of Iowa, he was selected as a referee, or "non-partisan member," for the First Division of the National Railroad Adjustment Board by the National Mediation Board and set to work on 99 deadlocked cases in May, 1940. Such was the nature of his findings and awards that the carrier members of the Division strongly objected to his re-appointment and in February, 1941, brought the attention of the Mediation Board to a large number of awards which "show his ineptitude, obtuseness and failure to decide with neutrality issues presented to him."—Ed.]

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The Pacific Motor Trucking Company Is Called Upon to Handle an Unusual Shipment



## Pullman, Inc.

**T**HE annual report of Pullman, Inc., for 1940 shows consolidated net income of \$7,484,125, or \$1.93 per share, after all charges and taxes, as compared with \$4,009,475, or \$1.03 per share, in 1939. Total earnings from all sources before federal income taxes amounted to \$9,927,439, of which \$2,971,306 came from its sleeping car business, as compared with \$2,630,298 in 1939; \$6,517,353 from its manufacturing business, compared with \$418,348 in 1939; and \$438,778 from investments, compared with \$1,684,098 in 1939. Net current assets as of December 31, 1940, amounted to \$75,875,858, compared with \$70,639,811 at the close of 1939. Cash and U. S. government securities amounted to \$51,091,010 at the end of 1940, while total current assets of \$93,045,062 were over five times current liabilities of \$17,169,203.

In the report to stockholders, D. A. Crawford, president, said, "An improved trend in Pullman traffic volume, developing in the last two months of 1940, has continued during the opening months of 1941, and with further advance likely to be generated in business activity and consumer income by the armament program, a continuing upward trend in the volume of Pullman travel is indicated.

"An unfavorable rate situation remains the most important obstacle in the way of substantial recovery in the first-class Rail-Pullman passenger business, and will continue so long as first-class rail fares are maintained at present levels over the coach rates. Absence of railroad advertising and rate promotion of the first-class service, comparable to that accorded their coach service, has seriously handicapped Pullman in its attempt to stem the diversion of speed-motivated travel to airways and of economy-minded travel to railroad coaches and highway vehicles.

"Under the stimulus of sizable carloading and revenue gains generated by war exports and the national defense program, the volume of railroad freight car orders placed with commercial carbuilders in 1940 was the heaviest, with one exception, for any year since 1929. The Corporation's manufacturing subsidiary secured a satisfactory proportion of the increased volume of freight equipment ordered during the year.

"More passenger cars were ordered in 1940 than in 1939 or 1938, but the buying of such equipment remained decidedly subnormal in relation to the pre-depression volume and to that attained in the 1934-1937 period. However, activity in the passenger-car

market has increased recently, and continuation of recovery in volume of passenger travel as a result of improved economic conditions should be accompanied by additional orders for equipment. Pullman-Standard continues to account for a substantial majority of passenger equipment orders placed with commercial car builders, and in 1940 secured orders for nearly twice as many railroad units as its closest competitor.

"Contracts for about \$49,000,000 worth of armament work, involving armored tanks, howitzer mounts, shells and shell forgings, and fabricated aluminum aircraft parts have been entered into by the manufacturing subsidiary with the United States and British Governments. Some of the principal orders will not reach quantity production for several months on account of delay on the part of the buying government in arranging for special materials, with the result that a part of the present armament backlog is now scheduled for delivery in 1942.

"Technical research and development work are proceeding actively in both major divisions, with emphasis on reductions in manufacturing costs and in subsequent cost to customers of maintaining the cars produced, and in the case of passenger equipment upon increased passenger comfort.

"Refinements are continually being made in the design of freight cars, and welded assemblies are further displacing conventional types of riveted construction. The 700 lightweight box cars placed in service since 1938 are performing satisfactorily and demonstrating that substantial savings can be made in railroad operating expense by the use of such new-type cars, with no sacrifice in unit capacity or availability for service, and no premium in initial cost. At the request of the Association of American Railroads, the Pullman-Standard Car Manufacturing Company has been co-operating with the Committee on Car Design of the American Railway Car Institute in the development of new types of lightweight freight equipment for adoption by the roads.

"A basis for further extension of transportation research activities was established in 1940 by the institution of a joint research arrangement, with the Chrysler Corporation, the New York Central, the Pennsylvania, and The Pullman Company as participants, for the purpose of continuing and expanding certain research work carried on in recent years in the field of design and construction of railroad rolling stock. Research carried on under this co-operative plan will be especially directed toward increasing the speed-capacity, safety and comfort of passenger train cars, with particular reference to weight distribution, couplings and trucks."

**Traffic and Operating Statistics**  
COMPARATIVE STATEMENT FOR YEARS ENDED DECEMBER 31

Item	1936	1937	1938	1939	1940
Cars Owned .....	8,004	7,763	7,578	7,052	6,901
Cars Operated .....	5,355	5,500	5,124	5,100	4,990
Car Miles .....	825,945,721	872,598,392	818,481,116	825,745,133	820,386,700
Revenue Passengers:					
Berth .....	12,049,359	12,849,076	11,338,471	11,549,947	11,077,546
Seat .....	5,148,377	4,895,492	4,201,378	4,105,188	3,687,770
Total .....	17,197,736	17,744,568	15,539,849	15,655,135	14,765,316
Revenue Passenger Miles .....	8,354,840,293	9,170,428,451	8,269,882,057	8,485,399,123	8,213,878,992
Revenue from Cars .....	\$52,645,993	\$57,666,648	\$54,444,640	\$55,931,672	\$55,355,930
Average per Car .....	\$9,830.82	\$10,484.46	\$10,624.59	\$10,967.21	\$11,092.71
Expenses .....	\$49,191,772*	\$53,447,531*	\$52,941,643*	\$53,755,353*	\$53,090,076*
Average per Car .....	\$9,185.80*	\$9,717.38*	\$10,331.29*	\$10,540.47*	\$10,638.65*
Net Earnings from Cars .....	\$3,454,221†	\$4,219,117†	\$1,502,997†	\$2,176,319†	\$2,265,854†
Traffic Averages:					
Average Revenue per Passenger .....	\$3.06	\$3.25	\$3.50	\$3.57	\$3.75
Average Net Earning per Passenger .....	\$0.20	\$0.24	\$0.10	\$0.14	\$0.15
Average Net Earning per Car per Day .....	\$1.76	\$2.10	\$0.80	\$1.17	\$1.24
Average Mileage per Car Operated .....	154,232	158,648	159,722	161,914	164,396
Average Journey per Passenger (Miles) .....	486	517	532	542	556
Average Miles per Car per Day .....	421	435	438	444	449
Average Loading per Car (Passengers) .....	10.12	10.51	10.10	10.28	10.01

\* Includes Pullman proportion of expense of operation of air conditioning equipment.  
† After provision for Federal Taxes.



## A. R. E. A. Rail Committee Initiates Important Tests

**T**WO projects have been undertaken by the Rail Committee of the American Railway Engineering Association, of which W. H. Penfield, chief engineer, C. M. St. P. & P., is chairman, that should be of definite interest to maintenance officers. The first of these is the trial of a tentative specification for the controlled cooling of rails, and the second is an extensive test on the reconditioning of rail ends by welding.

In presenting the report of the Committee on Rail in 1937 (A. R. E. A. Proceedings, Vol. 38, p. 644), Chairman Neubert made an oral presentation of a suggested specification for the controlled cooling of rails. This specification was substantially in accordance with mill practice at that time and has been used in the purchase of controlled-cooled rails since then. In the meantime, considerable research has been carried on at the mills and at the University of Illinois by Dr. H. F. Moore and his staff, under the direction of the Rails Investigation committee, to determine whether the provisions of this specification were adequate and satisfactory. As a result of these studies, certain revisions have been made in the specification. This revised specification, which was prepared by Dr. Moore, and has been approved and agreed upon by both the Rail committee and the Technical Committee on Rails of the American Iron and Steel Institute, is as follows:

### Specification for the Controlled Cooling of Rails

1. All rails shall be cooled in the regular way on hot beds or runways until the temperature is between 725 deg. F., and 1,000 deg. F., then charged immediately into the containers.

2. The temperature of the rails before charging shall be determined with a reliable pyrometer at the top of the rail head at least 12 in. from the end.

3. The handling of rails between the hot bed and the container and their subsequent removal shall be carefully conducted to avoid bending and to minimize cold straightening.

4. The cover shall be placed on the container immediately after completion of the charge and shall remain in place for at least 10 hours. After the removal or raising of the lid of the container no rails shall be removed until the temperature of the top layer of rails has fallen to 300 deg. F., or lower.

5. The temperature between an outside rail and the adjacent rail in the bottom tier of the container, at a point not less than 12 in., or more than 36 in., from the rail end, shall be recorded with reliable equipment. This temperature shall be the control for judging rate of cooling.

6. The container shall be so protected or insulated that the control temperature shall not drop below 300 deg. F. in 7 hours from the time that the bottom tier is placed in the container.

7. All controlled-cooled rails shall be hot-stamped "CC," except that controlled-cooled rails which are also end hardened shall be hot-stamped "CH."

So far, this specification has not been presented formally to the association, but is in tentative form only. Since it is believed to be an improvement over the specification now in use, it has been placed in the hands of the members of the Rail committee, with the understanding that the controlled-cooled rail to be purchased by their roads this year will be treated in

accordance with the requirements of the specification. It is also the hope of the committee that other roads that are not represented on the committee, will also use this specification for the purchase of controlled-cooled rails.

### To Study Rail-End Welding

One of the assignments of the committee is to study the cause and prevention of rail battering and methods for reconditioning rail ends. Under this assignment, a test of the end hardening of rail, which was described by Dr. Moore in his Sixth Progress report to the Rails Investigation committee, is now under way on the Chesapeake & Ohio, at Carey, Ohio. Preliminary to supplementing these tests with a study of methods for reconditioning battered rail ends, the committee sent out a questionnaire to a number of roads, inquiring about the methods they are employing for welding rail ends, and other pertinent information. The replies indicated a marked diversity in methods; few of the roads that replied knew what gross annual tonnage was passing over the welded rail; and it was apparent that costs were not being stated on a common basis.

For these reasons, the committee is initiating a series of comparative field tests in which the methods employed can be observed carefully, the actual costs of material and labor can be recorded, the lengths and depths of the added metal measured, and the kinds of welding rods and other data recorded, to permit an evaluation of the relative merits of the several methods employed. Annual gross tonnage records will be kept and periodic inspections of the test joints will be made.

These tests will be made on the Richmond, Fredericksburg & Potomac, the site being in the southbound track a short distance south of Panola, Va., 33 miles north of Richmond. Twelve stretches of track, each containing 50 joints, will be reconditioned, using the oxy-acetylene method and electric welding by both the a-c. and d-c. methods. It is also probable that propane will be used for one group of joints.

### 9 Roads and 1 Commercial Welder to Participate

Nine roads and one commercial welder have been invited to participate in the test and have accepted. Each one will weld 50 joints by one or more of the methods it is employing regularly, using its own welders and providing its own supervision. The R. F. & P. has available certain equipment for both gas and electric welding, but each road will be free to bring its own equipment if it so desires. The R. F. & P. will also furnish the necessary supplies and will provide the labor for handling gas tanks and other equipment and to do the grinding.

This test is to be made on 131-lb. rail that has not been welded heretofore. Weather permitting, it is planned to start the welding on May 5 and complete it on May 10. These tests are being arranged by Subcommittee 4 of the Rail committee, of which F. M. Graham, assistant engineer of standards, Penna., is chairman.

**COOLDOWN SYSTEM OF BOILER WASHING.**—Bulletin No. 411, published by the National Aluminate Corporation, and the Paige-Jones Chemical Company, Chicago, discusses controlled heating and cooling to protect the service life of locomotive boilers and describes the cooldown system of boiler washing. The bulletin is attractively illustrated with photographs and a plan of the piping arrangement required for the cooldown method of boiler washing.



## P. R. R. Champions L. C. L.

**T**HE Pennsylvania is an ardent champion of railroad-operated, railroad-encouraged transportation of less-carload traffic. Its officers take the position that merchandise traffic, if efficiently handled, can prove profitable to individual roads. Latest evidence of "l. c. l.-mindedness" on the Pennsylvania is a neat little 24-page illustrated pamphlet in color prepared for distribution to shippers. Entitled "Merchandise Facts" it outlines by the aid of diagrams the scope of P. R. R. merchandise service and improvements in speeds, average load per car, etc. Little known facts such as the weight and character of the average less-carload shipment on the system and a break-down of traffic by length of haul are also covered.

Among other things, the booklet stresses the truism that added volume will reduce unit costs and increase efficiency, since present traffic does not "even begin to utilize the immense capacity, vast facilities" of the road. It points out also that "c. o. d." shipments have increased 400 per cent since 1936; that 62 per cent of all forwarded and 82 per cent of all received l. c. l. shipments are afforded railroad p. & d. service; and that 80 per cent of all claims developing on l. c. l. freight in 1939 were paid within 30 days.

### Merchandise Gets a Newspaper

To meet the peculiar needs of shippers of merchandise, the Pennsylvania established "merchandise service bureaus" in 50 strategically-located points on its system in June, 1940, as was reported in the *Railway Age* of June 22, 1940, page 1139. For the last eight months traffic personnel has received monthly news bulletins from the office of chief of freight transportation, Philadelphia, Pa., designed to acquaint them with the latest developments in the l. c. l. field. The nine-page issue for February, for example, lists specific service improvements in package cars to various on-and-off-line points; new merchandise services by other roads; speed-ups by connecting lines; new motor truck operations; changes in schedules; establishment of p. & d. at additional points and improvements in station operations. Also covered are important modifications in l. c. l. rates and, under the head of "Agents in Action," the self-initiated activities of agents at various points in sales and service.

The railroads should neither pool their merchandise traffic nor default it to the forwarders, but should take immediate steps to rebuild the volume and revenues of

this "sick baby" of their traffic portfolio. This is the outspoken conclusion of the management of the Pennsylvania—which incidentally originated 14.3 per cent of the nation's l. c. l. tonnage in 1939—as expressed in testimony before the Senate sub-committee on Interstate Commerce by Vice-Presidents J. F. Deasy (operation) and W. S. Franklin (traffic) on June 6 and 7, respectively, and reprinted in full in a 44-page study recently made public by the road.

The Pennsylvania believes that pooling of l. c. l. should not be adopted, and cites among other reasons that the claim of potential economies advanced by the advocates of pooling is not supported by the facts or by logic; and that an arrangement for compulsory pooling of traffic and revenues would retard the introduction of improved methods in the handling of merchandise traffic, "for the simple reason that it would remove the incentive for initiative and profit, and would obviously reward indolent and inefficient carriers at the expense of the progressive ones."

Reasons for the first of the above-mentioned conclusions are that of the nearly 64,000 communities in the country served by railroads, 90.2 per cent are served by only one road; 7.8 by two and only 2 per cent by more than two; that total train service would not be materially reduced by diversion of l. c. l. from one carrier to another because l. c. l. is almost always handled in carload trains; and that other claimed economies from pooling are possible of adoption by individual railroads themselves.

### Efforts By P. R. R. Show Results

To show what can be done with l. c. l. business by the roads themselves Mr. Deasy outlined what the P. R. R. has accomplished in cutting costs and bettering service. In the direct operating field the road has:

"(1) Almost doubled the average load per car, thereby reducing by half the required number of cars.

"(2) Inaugurated the use of steel containers as sectionalized box cars. This improves the service to and from smaller cities.

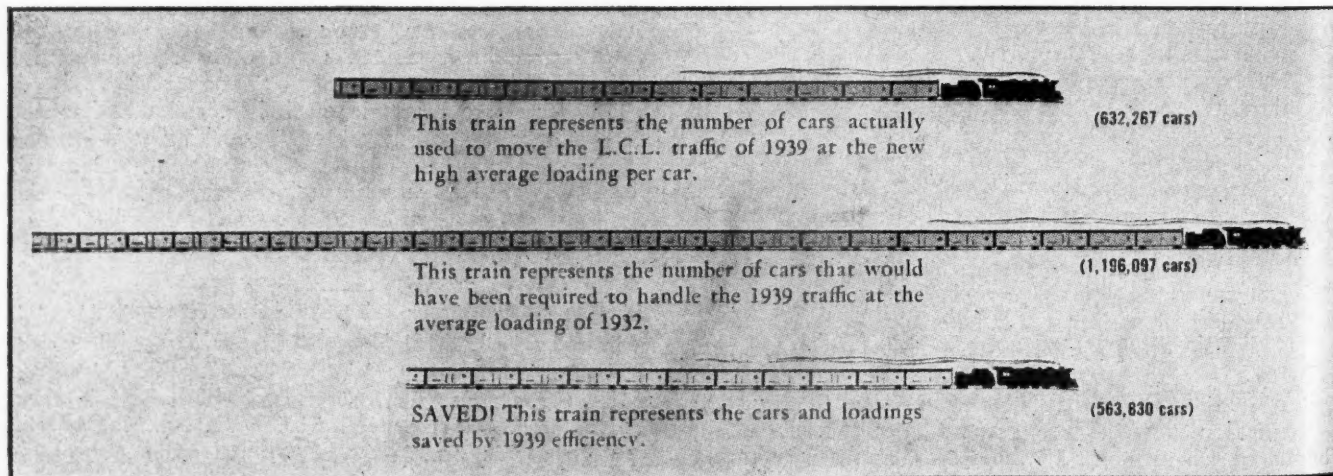
"(3) Established at appropriate centers zone concentration freight stations; much merchandise freight is assembled at, and distributed from, these zone stations by motor trucks.

"(4) Made the service more convenient for the patron by the establishment of a universal pick-up and delivery service, and by increasing open-hour periods at freight stations.

"(5) Made notable progress in the over-all speed of the service. Over-all time has been reduced 24 to 48 hours. Our service goal is a maximum of two days between any two points on our system, regardless of size or location of the communities.

"(6) Established a "c.o.d." service, whereby the amount of the shipper's invoice is collected by the railroad upon delivery of the shipment, and is remitted to the shipper."

In addition it has materially reduced the cost of so-called "paper work" by:



The Pennsylvania's Booklet on L. c. l. Illustrates How Increased Loading Per Car Builds Efficiency On Its System



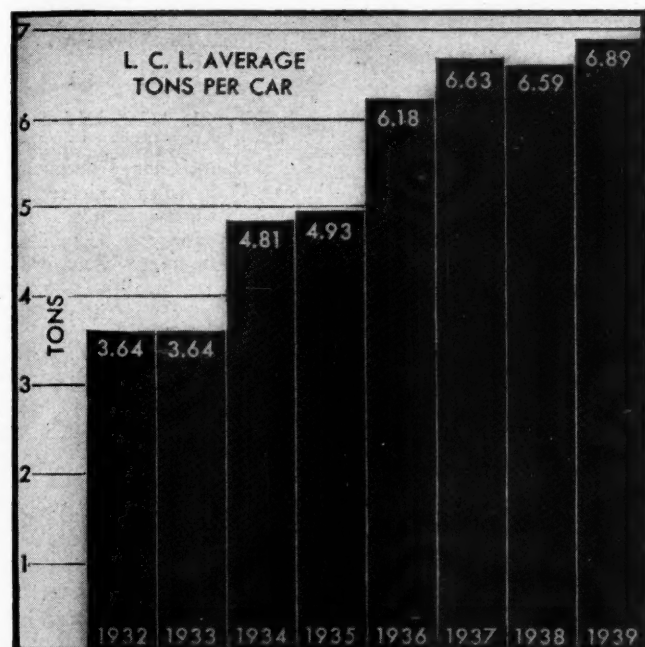
"(1) The establishment, as a principle, that any shipping information once recorded shall not be later duplicated, but only a single writing of that information made for all purposes. So-called way-bills on our railroad, will soon be a thing of the past, and freight will be moved on a shipping order, which is prepared by the shipper.

"(2) The concentration of billing and other clerical operations at zone accounting stations, where trained employees and special mechanical devices can perform the work at minimum cost.

"(3) The establishment by the auditor of rate-revision bureaus at these zone stations, eliminating, to a large extent, vexatious under-charges and over-charges.

"(4) A great simplification in general office accounting by changing the method of effecting settlements with connecting carriers for interline traffic. Eighty-five per cent of our interline less-carload way-bills are now accounted for on fixed junction point per cents, rather than individual settlements according to actual origin and destination of each shipment."

Expanding this summary he pointed out that the road has increased the average load per merchandise car from 3.64 tons in 1932 to 6.89 tons in 1939. Between repre-



"Merchandise Facts" Graphs Rise in L. c. l. Loading Per Car on the P. R. R.

sentative large stations in May, 1940, the average load of over 1800 cars ranged from 12 to 18 tons per car. Discussing "zone concentration stations," Mr. Deasy, with the aid of charts, explained how motor truck routes operated by the road from these stations have grown from four in 1923 to 179 in 1940, the latter serving 1,345 stations and averaging more than 11,200 miles daily. In 1939 the P. R. R. handled 410,000 tons of l. c. l. in motor service, or approximately 32 per cent of the 1,300,000 tons handled in this manner by all Class I roads.

The record shows that by these methods the road has steadily increased its l. c. l. volume since 1933, contrary to the trend for railroads in the country as a whole. Naturally this fact has increased its importance in the national picture. The Pennsylvania took in 13.1 of total l. c. l. revenues and originated 14.3 per cent of the tonnage in 1939, as compared with but 9.7 per cent of the revenue and 10.8 per cent of the tonnage in 1928.

#### Is L. C. L. Traffic Profitable?

To the question whether direct L. C. L. handling by the railroads themselves can be made profitable, Mr. Deasy answered "yes," adding that it is far too large a portion of the railroads' total field of transportation to be ignored or allowed to go to other agencies by default. The less-carload "take" forms about 10 per cent

of the P. R. R.'s gross freight revenues and the road's annual net income would be decreased by approximately \$15,000,000 if merchandise traffic were given up. "What this means is that our present method of handling merchandise traffic through direct less-carload freight service contributed last year almost fifteen million dollars to the income of our company over and above the out-of-pocket cost of the service." Mr. Deasy added that "I know of no alternative method of handling merchandise traffic which would produce as great a contribution to our general income."

#### Franklin Advocates Rate Revisions

Drastic revisions in rates and simplification of the rate structure were advocated by Mr. Franklin to make the l. c. l. service of the railroads more attractive to shippers and bring back additional business to the rails. For these purposes, he said, two radical measures are being actively considered by the Eastern roads. The first would provide for the establishment of a new system of rates intermediate between the present carload and less-carload rates, to be known as "quantity rates," utilization of which by competitors has resulted in the diversion of much traffic from the railroads to forwarders, water lines and trucks. The second measure would affect a large group of commodities, which are of high weight density and load economically, but are now rated first or second class, or higher. They would all be reduced to third class with large savings in transportation costs to shippers.

To counteract the "prevailing impression" that the railroad industry has neglected merchandise traffic, Mr. Franklin reviewed the efforts of the Pennsylvania to develop l. c. l. business. He referred to the road's staff of special merchandise traffic representatives as "young men who are ready to adopt new practices and are not bound by tradition." They are charged with the development of l. c. l. traffic exclusively. He made mention also of the "service bureaus" described above.

That P. R. R. merchandise service is now generally satisfactory to its users is indicated by returns to questionnaires sent out periodically to shippers and receivers of all types of l. c. l. traffic. To one batch sent out last year over 90 per cent of several thousand replies received expressed satisfaction. The questionnaires not only seek shipper reaction to present service but submit suggestions for improvements and refinements for constructive criticism. Replies to such inquiries have resulted in many important changes in rates and services.

\* \* \*



"Fans" on a Trip Over the New York, Ontario & Western marched into Monticello, N. Y., Behind a Brass Band Furnished by the Mayor. Snow and Wet Pavements Were Ignored



# NEWS

## Sillcox Examines The St. Lawrence Scholarly engineer finds scheme wanting as defense aid and for peacetime use too

In a characteristically scholarly and well-documented analysis of the St. Lawrence Seaway project, presented before the Harvard Graduate School of Business Administration recently, L. K. Sillcox, vice-president, New York Air Brake Company, has given the competent engineer's view of this project. This important paper has been reprinted in the April issue of "Mechanical Engineering", monthly publication of the American Society of Mechanical Engineers. The author observes that the project is variously promoted and condemned on purely sectional bases—advocated and refuted by special interests which are not representative of considered national judgment. The expense—which eventually must be met by a levy upon the citizens of both participating countries, though the burden would be postponed by the temporary process of further increase in the national debt and debt service—will be incurred at the insistence of political pressure groups or favored industries and trades."

Mr. Sillcox traces the history of the seaway proposal from the establishment of the international waterway commission in 1895 to the latest executive order of President Roosevelt. He goes on to calculate the effect of the seaway on railroads, private power companies, the coal industry, Great Lakes water carriers, American ocean steamship interest and—most important of all—on the taxpayers of Canada and the United States. Among other things, he goes into considerable detail about the types of vessels which would be able to traverse a tortuous 27-ft. channel between Montreal and the Great Lakes, and the effect of the growth of foreign tramp vessels on America's subsidized Merchant Marine.

In discussing the justification of the development of water transport by government moneys, Mr. Sillcox has the following to say: "Tonnage can move cheaply by water, competitively with railways, when great vessels can be employed, favored by deep, natural channels, free from great storms and swift currents; where long distances minimize rehandling expense; and when both origin and destination of cargo are accessible to the water route. Were these natural restrictions upon the economics of waterway transportation respected in all cases, railways would have no quarrel with waterways in the distri-

bution of traffic, and inland-waterway tonnage in substantial volume would move only over the Great Lakes and the lower reaches of the Mississippi River and its important tributaries within the limits of our country; coastwise; and from coast to coast.

"This concedes the Soo Locks and the Welland Canal, where development cost probably is commensurate with the benefits. It allows the Panama Canal, a valuable artery in world trade and essential for national defense. Some development of the Mississippi River for navigation purposes may be justified as a complement to flood control. It cannot justify the New York State Barge Canal, the federally-sponsored Inland Waterways Corporation with its 12,500 circuitous miles of costly rail-competitive water route, many of the minor developments on more than 200 other rivers and streams, or the improvement of the St. Lawrence River to provide a 27-ft. channel connecting the Great Lakes with the Atlantic Ocean."

The address concluded with opinion that expenditures to build both the seaway and power aspects of the project are neither prudent nor desirable. Says Mr. Sillcox: "The St. Lawrence project has been promoted with two arguments predominating—low power costs to the area which is under its influence and low transportation costs of midwestern production. A third argument, built up around a Canadian need for more power to promote her war effort and, simultaneously, a national-defense aspect, appealing to citizens of the United States, rises above the more familiar factors which have been discussed. Canada's unlimited resources in undeveloped power within the Dominion cannot be overlooked. Increased power demand in our own country can be more quickly and cheaply obtained by other means.

"The tremendous cost to every United States citizen of whatever rates advantage the Midwestern farmer may enjoy can be demonstrated without question. It appears doubtful that ocean shipping in volume would make use of a long, 27-ft. channel if it were provided and the possible benefits to our country if it were used are not clear.

The advantage of inland yards for the building of ships in the event our country were involved in war is not wholly clear. If our coastal shipbuilding plants should be endangered, a long and narrow channel, vulnerable to the destruction of locks and exposing helpless vessels on their way to the sea to the perils of modern warfare can scarcely be a solution—even assuming that the river works could be made quickly available. Despite the facility with which the fundamental purpose of the project can assume new forms, the necessity or the prudence, even yet, is not apparent."

## TNEC "Expert" Probes Transport Finds Truck rate regulation fostering monopoly; hits r. r. rates and Pullman

Monograph No. 21, "Competition and Monopoly in American Industry," authored by Clair Wilcox, professor of economics at Swarthmore College, and released this week by the Temporary National Economic Committee (Monopoly Committee) has several comments to make regarding the monopolistic and competitive positions of the railroad industry and the Pullman Company. After pointing out that the railroads had a virtual monopoly of the transportation business in the nineteenth century but that other forms of transport had given them severe competition in the twentieth, the author of the monograph does observe that there still are some shipments which can only be made by rail and he asserts that such traffic is forced to pay a higher rate than traffic which can be moved by other agencies.

Discussing the loss of business by the Pullman Company to other carriers, the author goes on to declare that "Yet despite its loss of traffic to other carriers, its declining revenues, its large reserve of idle cars and its high percentage of unused capacity, Pullman made little effort to improve its technology until well into the thirties."

Turning again to the railroads, Professor Wilcox feels that the whole railway rate structure is such as to enable the railroads to take advantage of their "monopolistic" position with relation to that portion of the traffic which can be hauled only by the railroads.

"Different commodities," he writes, "are hauled at different rates per ton-mile. Goods which could be shipped over other carriers may get a lower rate. Those which must move over the rails may be required to pay a higher rate. Nor is the charge made for each mile that goods are hauled a uniform one. Communities which have access to other means of transportation, communities which are served by two or more carriers, may ship at lower rates. Communities which must depend upon a single carrier may be compelled to pay higher rates. With the permission of the Interstate Commerce Commission, the rates charged for a shorter haul may even exceed those charged for a longer haul in the same direction over the same line."

"The resulting rate structure," concludes Professor Wilcox, "is a necessary consequence of the characteristics of the

(Continued on page 620)



## Two Months N. O. I. Was \$120,836,276

4.27 per cent return compares  
with \$78,869,298 or 2.79  
per cent last year

Class I railroads of the United States in the first two months of 1941 had earnings (net railway operating income) of \$120,836,276, before interest and rentals, according to the Bureau of Railway Economics of the Association of American Railroads. This was at the annual rate

turn of 4.32 per cent. In the first two months of 1940, their corresponding earnings were \$51,621,507 or 3.29 per cent, and in the same period in 1930 they were \$65,166,356 or 4.76 per cent. Operating revenues in the Eastern district in the two months totaled \$376,402,104, an increase of 10.5 per cent compared with the same period in 1940, but a decrease of 14.5 per cent compared with the first two months in 1930; operating expenses totaled \$262,342,280, an increase of 5.9 per cent above 1940, but a decrease of 22.8 per cent under 1930.

February earnings in the Eastern district were \$32,874,733, before interest and

## AAR Summarizes 1940 Purchases

Tabulation shows how each  
state shared in carrier out-  
lay of a billion dollars

The Bureau of Railway Economics, A. A. R., has issued its tabulation of purchases by the Class I railroads in 1940. These figures offer comparison with similar figures for all railroads (Class II and III as well as Class I), which were compiled by this paper and published in our March 22 issue. The differences between the two summaries for the Class I carriers will be found to be slight. An abstract of the major disclosures of the A. A. R. survey follows:

Purchases of fuel, materials and supplies made by the Class I railroads of the United States in connection with their operation in 1940 totaled \$854,463,000, according to the A. A. R. This total, which compares with \$855,972,720 reported by this paper, was an increase of \$85,149,000 compared with 1939. In 1937, purchases of fuel, materials and supplies totaled \$966,383,000. Continuing the summary as reported by the A. A. R., Class I railroads in 1940 expended \$273,556,000 for fuel compared with \$257,273,000 in 1939. For bituminous coal only, their purchases totaled \$205,628,000, an increase of \$12,549,000 compared with the preceding year, while for anthracite, they totaled \$3,486,000, a decrease of \$1,439,000 compared with 1939. Purchases of fuel oil in 1940 amounted to \$56,895,000 compared with \$52,334,000 in the preceding year. For gasoline, there was an expenditure of \$4,407,000 in the past year, while for all other fuels, including coke, wood, and fuel for illumination, expenditures amounted to \$3,140,000.

Purchases of forest products amounted to \$82,185,000 in 1940 compared with \$69,971,000 in 1939. For cross ties, including switch and bridge ties, the railroads expended \$52,534,000 in 1940, an increase of \$8,776,000 above such expenditures in 1939. Purchases of lumber, including timber as well as other forest products, amounted to \$29,651,000, which was an increase of \$3,438,000 above the preceding year.

Class I railroads, in 1940, purchased iron and steel products amounting to \$315,048,000 compared with \$273,968,000 in 1939, or an increase of \$41,080,000. For locomotive and car castings, beams, couplers, frames and car roofs, the railroads spent \$40,852,000 in 1940 compared with \$39,587,000 in the preceding year. Purchases of steel rail, including new and second-hand except scrap, amounted to \$45,065,000 in 1940 compared with \$38,339,000 in the preceding year, while for track fastenings, track bolts, spikes, and other such materials used in connection with the laying of rails, the railroads expended \$35,718,000, which was an increase of \$982,000 above the preceding year.

For wheels, axles and tires, the railroads expended \$27,390,000 compared with \$25,799,000 in the preceding year, and for bar iron and steel, spring steel, tool steel, unfabricated rolled shapes, wire netting and chain, boiler, firebox, tank and sheet iron

### CLASS I RAILROADS—UNITED STATES

Month of February

	1941	1940	1930
Total operating revenues	\$358,413,499	\$313,594,852	\$422,864,774
Total operating expenses	255,590,196	240,579,920	326,700,317
Taxes	34,325,812	29,718,722	28,239,638
Earnings before charges	58,478,869	32,856,489	58,367,529
Operating ratio—per cent	71.31	76.72	77.26
Rate of return on property investment—per cent....	4.01	2.26	3.72
Two Months Ended February 28			
Total operating revenues	\$735,787,689	\$659,233,974	\$868,785,724
Total operating expenses	524,559,078	497,975,895	679,039,178
Taxes	69,844,880	60,962,012	57,179,390
Earnings before charges	120,836,276	78,869,298	113,013,227
Operating ratio—per cent	71.29	75.54	78.16
Rate of return on property investment—per cent....	4.27	2.79	3.79

of return of 4.27 per cent on their property investment, and the corresponding earnings in the first two months of 1940, were \$78,869,298 or 2.79 per cent, while in the same period in 1930, they were \$113,013,227 or 3.79 per cent.

Class I roads in February had earnings, before interest and rentals, of \$58,478,869 or 4.01 per cent on investment compared with \$32,856,489 or 2.26 per cent in February, 1940, and \$58,367,529 or 3.72 per cent on investment in February, 1930.

Gross operating revenues in the first two months totaled \$735,787,689, compared with \$659,233,974 in the same period in 1940, and \$868,785,724 in the first two months in 1930, an increase of 11.6 per cent in 1941 above 1940, but 15.3 per cent below 1930. Operating expenses amounted to \$524,559,078, compared with \$497,975,895 in the corresponding period in 1940, and \$679,039,178 in the same period in 1930, operating expenses in the first two months in 1941 were 5.3 per cent above the corresponding period in 1940, but 22.7 per cent below the like period in 1930.

Class I roads in the two months paid \$69,844,880 in taxes, compared with \$60,962,012 in the same period in 1940, and \$57,179,390 in the same period in 1930. For February alone, the tax bill amounted to \$34,325,812, an increase of \$4,607,090 or 15.5 per cent above February, 1940. Eighteen Class I roads failed to earn expenses and taxes in the two months, of which eight were in the Eastern district, two in the Southern district, and eight in the Western district.

Gross for February totaled \$358,413,499, compared with \$313,594,852 in February, 1940, and \$422,864,774 in February, 1930; operating expenses totaled \$255,590,196, compared with \$240,579,920 in the same month of 1940, and \$326,700,317 in February, 1930.

Class I roads in the Eastern district had earnings in the first two months of \$67,697,189, before interest and rentals, a re-

rentals, compared with \$21,216,267 in February, 1940, and \$32,227,201 in February, 1930.

Class I roads in the Southern district had earnings in the two months of \$20,893,988, before interest and rentals, which was at the annual rate of return of 4.34 per cent. In the same period in 1940, their corresponding earnings were \$12,831,217, a return of 2.67 per cent, and in the same 1930 period they were \$15,651,613 or 2.94 per cent. Operating revenues in the two months of the Class I roads in the Southern district totaled \$104,182,869, an increase of 13.2 per cent compared with the same period in 1940, but a decrease of 10.7 per cent compared with the same 1930 period; operating expenses totaled \$71,336,612, an increase of 3.6 per cent above the same period in 1940, but a decrease of 22.2 per cent under the same period in 1930.

The February net in the Southern district was \$10,440,518, compared with \$6,483,736 in February, 1940, and \$8,074,668 in February, 1930.

In the Western district the two months earnings, before interest and rentals, were \$32,245,099, a return of 4.13 per cent. In the same period of 1940 the corresponding earnings were \$14,416,574, or a return of 1.85 per cent, and in the corresponding period in 1930, they were \$32,195,258 or 2.99 per cent. Operating revenues of the Class I roads in the Western district in the first months totaled \$255,202,716, an increase of 12.6 per cent above the same period in 1940, but a decrease of 18.1 per cent below the same 1930 period; operating expenses totaled \$190,880,186, an increase of 5.2 per cent compared with the first two months in 1940, but a decrease of 22.9 per cent compared with the same period in 1930.

For February alone the Class I roads in the Western district had earnings of \$15,163,618, before interest and rentals, compared with \$5,156,486 in February, 1940, and \$18,065,660 in February, 1930.



and steel of all kinds their expenditures amounted to \$25,875,000 compared with \$21,963,000 in the preceding year. Purchases of interlocking and signal material in 1940 totaled \$16,298,000, and for standard and special mechanical appliances for locomotives, \$12,659,000.

Miscellaneous purchases made by Class I railroads totaled \$183,674,000 in 1940, compared with \$168,102,000 in 1939. Com-

the Pacific Northwest Advisory Board at its annual meeting at Portland, Ore., on March 29. Officers elected were: President, Donald A. Callahan, president of Callahan Consolidated Mines, Inc.; vice-president, K. C. Batchelder, manager of the West Coast Lumbermen's Association; executive secretary, Gordon Tongue, secretary-treasurer of the Superior Portland Cement Company; and secretary, C. H.

commission. October 1 is the latest date to which the commission is authorized to postpone the effective date of the requirement.

Meanwhile contracts covering the protective service must be filed with the commission by August 1. This matter is being handled by the commission in a proceeding docketed as Ex Parte No. 137.

### Stores Convention Postponed

The Purchases and Stores Division—A. A. R., has abandoned previous plans to hold its annual convention in Chicago during June and now expects to hold the meeting in Chicago early in July. The exact dates of the convention are as yet undetermined according to the secretary.

### Pullman's Fourth-Section Relief Continued

The Interstate Commerce Commission, Division 2, has issued an order granting a continuance until November 1 of fourth-section relief which the Pullman Company obtained some time ago in connection with its charges for the occupancy of upper berths in the East.

### A. A. R. Favors Daylight Saving

Without endorsing any of the Daylight-Saving bills pending in Congress, the board of directors of the Association of American Railroads has approved the idea of federal legislation providing for nationwide Daylight Saving Time. The latest of the Daylight-Saving bills is H. R. 4206, introduced by Representative Keogh, Democrat of New York.

### Eye Protection Featured in Safety Poster

Eye protection through the use of goggles is the theme of the May poster issued by the Association of American Railroads in its "All the Year-Every Year Safety Program." Picturing two shop apprentices whose cracked goggles demonstrate their effectiveness in preventing serious eye damages, the poster bears the slogan "Again the Eyes Have it."

### Tariffs Suspended

The Interstate Commerce Commission has suspended from April 3, until November 3, the operation of certain schedules proposing to substitute the rail service of the Chicago, Milwaukee, St. Paul & Pacific for motor service of the Consolidated Freightways, Inc., between Chicago and the Twin Cities, without observing the provisions of section 4 of the Interstate Commerce Act.

### Limits of New York Harbor

The Interstate Commerce Commission, Division 4, has determined that the limits of New York harbor and harbors contiguous thereto are "the waters within the area over which the Port of New York Authority now has jurisdiction." The determination is for the purpose of administering that provision of the Transportation Act of 1940 which exempts from regulation water carriers operating wholly within a harbor or contiguous harbors, when such operations are not part "of a continuous through movement under common control,

### Purchases of Fuel, Material and Supplies, and New Equipment\* Class I Railroads—1940

State	Fuel, Material and Supplies	New Equipment†	Total
Alabama	\$21,830,016	\$4,403,343	\$26,233,359
Arizona	491,332	.....	491,332
Arkansas	4,893,575	3,093	4,896,668
California	44,166,439	136,681	44,303,120
Colorado	15,800,078	1,223	15,801,301
Connecticut	6,104,446	43,143	6,147,589
District of Columbia	724,233	.....	724,233
Delaware	1,238,318	204,800	1,443,118
Florida	3,876,164	.....	3,876,164
Georgia	5,896,003	5,755	5,901,758
Idaho	637,139	.....	637,139
Illinois	102,785,184	17,647,068	120,432,252
Indiana	49,023,422	13,443,750	62,467,172
Iowa	3,905,732	1,746,909	5,652,641
Kansas	8,480,889	.....	8,480,889
Kentucky	18,645,125	1,214	18,646,339
Louisiana	5,791,282	.....	5,791,282
Maine	1,002,481	.....	1,002,481
Maryland	8,137,304	160,188	8,297,492
Massachusetts	8,873,886	151,097	9,024,984
Michigan	12,851,602	209,588	13,061,190
Minnesota	14,606,128	14,442	14,620,570
Mississippi	2,976,547	.....	2,976,547
Missouri	20,969,600	9,747,368	30,716,968
Montana	5,613,240	5,205	5,618,445
Nebraska	3,725,880	558	3,726,438
Nevada	65,663	.....	65,663
New Hampshire	443,276	.....	443,276
New Jersey	18,732,756	1,641,205	20,373,961
New Mexico	2,309,027	.....	2,309,027
New York	47,508,682	24,434,879	71,943,560
North Carolina	1,556,304	.....	1,556,304
North Dakota	232,008	3,108	235,116
Ohio	60,986,019	2,614,991	63,601,010
Oklahoma	7,193,581	3,283	7,196,864
Oregon	7,869,472	12,976	7,882,448
Pennsylvania	172,001,935	40,176,550	212,178,485
Rhode Island	1,001,657	.....	1,001,657
South Carolina	1,968,473	783	1,969,256
South Dakota	273,982	.....	273,982
Tennessee	10,781,121	35,500	10,816,621
Texas	15,567,803	82,827	15,650,630
Utah	4,568,767	298	4,569,065
Vermont	587,795	.....	587,795
Virginia	10,984,068	5,357	10,989,425
Washington	11,027,768	162,710	11,190,478
West Virginia	41,439,033	5,510,736	46,949,769
Wisconsin	11,025,461	1,555,920	12,581,381
Wyoming	2,874,753	.....	2,874,753
Foreign (Canada, etc.)	1,833,952	713	1,834,665
Total	805,879,421	124,167,261	930,046,682
Not distributed by States	48,583,579	.....	48,583,579
Grand Total	854,463,000	124,167,261	978,630,261

\* Materials and equipment received plus freight charges. Bureau of Railway Economics, A. A. R.

† Excludes equipment built in company shops.

ing under this heading were \$27,994,000 for glass, drugs, chemicals, including chemicals for timber treatment, and painters' supplies; \$17,148,000 for lubricating oils and grease, illuminating oils, boiler compound and waste; \$14,502,000 for stationery and printing; \$17,187,000 for commissary supplies for dining cars, camps and restaurants; \$13,453,000 for electrical materials; \$10,734,000 for ballast; \$6,430,000 for passenger car trimmings; and \$9,190,000 for locomotive, train and station supplies.

The allocation of the purchases made by the Class I line haul railroads among the states for fuel, materials and equipment, as compiled by the Bureau of Railway Economics, is given in the accompanying table.

### Pacific Northwest Board Meeting

An increase of 15.3 per cent in carloadings during the second quarter of 1941, as compared with the same period in 1940, was forecast by commodity committees of

Armes of the Association of American Railroads. Among those addressing the meeting were: Kinsey M. Robinson of the Washington Water Power Company, who urged the creation of an impartial, fact-finding committee to study the whole question of power supply; William A. Schoenfeld, dean of Oregon State College and F. M. Chaoman, economist for the United States department of agriculture, who led a forum on the effects of war on northwest agriculture; and K. C. Batchelder, who described the effects of national defense upon the Northwest.

### Contracts for Prospective Services

The Interstate Commerce Commission has postponed until October 1 the effective date of the requirements of that provision of the Transportation Act of 1940 which makes it unlawful for a railroad to continue as a party to any contract covering protective service against heat or cold, unless such contract has been approved by the



management, or arrangement to or from a place outside" such harbor.

The commission's order, dated March 26, has an appendix showing a map of the area involved; it has been served on interested parties, and will become effective 30 days from its date "unless good cause is shown for further proceedings herein." The case is docketed as Ex Parte No. 140.

### B. & O. Campaign for Flying Ambulance

Two union general chairmen of the Baltimore & Ohio are heading a system-wide campaign to raise \$67,000 for the purchase of a "flying ambulance" to be sent as a gift to the British Royal Air Force. Employees and officers of two Baltimore & Ohio affiliates—the Reading and Central of New Jersey—have already presented eight automobile ambulances through the British-American Ambulance Corps to the London Midland & Scottish. The aim of the Baltimore & Ohio campaign is to purchase an ambulance of the air which will be used in the aid of flyers of fighting planes shot down in the war area. The campaign is under the direction of the Baltimore & Ohio General Chairmen's Association headed by W. N. Clay, general chairman, Brotherhood of Maintenance of Way Employees, B. & O.-Alton and H. J. Doyle, general chairman, International Brotherhood of Electrical Workers, and president of the B. & O. system Federation No. 30, Shop Crafts.

### Vacations Demand Still Being Mediated

"Still mediating" is all that was being said this week at offices of the National Mediation Board in response to inquiries as to the status of negotiations in connection with the demand of the 14 non-operating unions for vacations with pay. The Board's meetings with labor and management representatives commenced on March 19, and were thus entering their second week of daily sessions when this issue of *Railway Age* went to press.

### Wall Heads Bureau of Service

C. C. Wall, assistant director of the Interstate Commerce Commission's Bureau of Service, has been promoted to director, succeeding E. H. DeGroot, Jr., whose retirement on March 31 was noted in the *Railway Age* of March 29, page 578. Mr. Wall became associated with the Bureau in November, 1922, and he has been assistant director since May, 1937.

The new director was born March 30, 1886, near Findlay, Ohio, where he attended public schools, being graduated from high school in 1901. He then entered Oberlin College but was forced to withdraw after one year because of illness. Meanwhile Mr. Wall had entered railroad service at Findlay in 1896, working during vacations and after school hours as a messenger and call boy for the Cleveland, Cincinnati, Chicago & St. Louis. Thereafter each of his school vacations found him in the employ of some railroad, his employers of that period including the Big Four, Hocking Valley, Michigan Central and Pere Marquette. Commencing in 1903 Mr. Wall's full-time employment with one

or the other of those roads was continuous until 1918, and it included an eight-year period of service with the Pere Marquette from 1910 until 1918. His railroad jobs included, among others, section hand, yard clerk, rate clerk, warehouse foreman, cashier, telegraph operator, local freight agent, yardmaster, supervisor—Toledo De-



C. C. Wall

murrage Bureau, transportation inspector, supervisor of transportation, train master, and assistant to general superintendent of transportation.

When Mr. Wall left the Pere Marquette in 1918 it was to enter the U. S. Army, with which he served as first lieutenant of engineers in the American Expeditionary Force. After a year of this military service he returned to the P. M. as supervisor of transportation, remaining in that position until November 20, 1922, when he entered the employ of the Interstate Commerce Commission as service agent for the Bureau of Service, with headquarters at Detroit, Mich. Mr. Wall continued in that position until May 1, 1937, when he was appointed assistant director of the Bureau with headquarters at Washington, D. C.,—the position he was holding at the time of his promotion to the directorship, effective April 1.

### I. C. C. Will Appeal Pacific Electric "Labor-Protection" Case

The Interstate Commerce Commission has decided to appeal to the United States Supreme Court from that decision of a special three-judge court in the District of Columbia which held that the commission has power to attach "labor-protection" provisions to its approval of railroad applications for abandonment of lines. The case involves the proposed abandonment by the Pacific Electric of some 88 miles of line in the Los Angeles, Calif., area; and the three-judge court's decision was reviewed in the *Railway Age* of March 15, page 491.

### Loss and Damage Payments Increase \$2,173,819

Freight loss and damage payments of 142 railroads of the United States and Canada increased \$2,173,819 or 11½ per cent in 1940, as compared with 1939, according to figures compiled by the Freight Claim Division of the Association of American

Railroads. Payments for 1940 amounted to \$21,059,149 and for 1939 to \$18,885,330. Of the causes, all showed increases excepting Improper Refrigeration or Ventilation and Concealed Loss which decreased 29.6 per cent and 1.9 per cent, respectively.

As in previous years, a large portion of the payments are charged to Unlocated and Concealed Damage, the amount being \$14,891,259 in 1940 and \$13,423,707 in 1939. Improper Handling in Trains and Yards accounted for \$738,839 of the payments in 1940, defective equipment, \$1,055,172 and train accidents \$818,608.

Payments on fresh fruits, melons and vegetables were 21 per cent of all payments or \$4,541,276. Of this amount, payments aggregating \$3,177,642 were charged to Unlocated Loss and Damage.

### Freezes Coal Prices

Price Commissioner Leon Henderson of the National Defense Advisory Commission, on April 2, issued a price schedule freezing bituminous coal prices at or below the March 28 prices. The ceiling prices apply to producers, distributors, retailers and all other sellers of bituminous coal. The Defense Commission announcement explained the price-freezing action as one designed "to prevent runaway or excessive prices due to the bituminous coal strike," adding that "in the event of a substantial resumption of production, these ceiling prices will be revoked as soon as practicable."

### Western Pacific Inaugurates Merchandise Dispatch Service

Expedited freight merchandise dispatch service was placed in operation by the Western Pacific on March 28, between San Francisco, Cal., and Sacramento, Marysville, Oroville, Chico, Yuba City and points on the Colusa branch of the Sacramento Northern. The new service provides overnight early first-morning deliveries of freight at points in the Sacramento Valley served either directly by the Western Pacific or in conjunction with the Sacramento Northern. Fifteen freight cars, especially equipped in company shops, are used in a pool for this service.

### Chicago Traffic Club Elects Officers

The following officers of the Traffic Club of Chicago were elected on March 27, for the ensuing year: President, W. Haywood, freight traffic manager of the Illinois Central; first vice-president, A. H. Schwietert, traffic director of the Chicago Association of Commerce; second vice-president, E. B. Finegan, chief traffic officer of the Chicago, Milwaukee, St. Paul & Pacific; third vice-president, S. L. Felton, general traffic manager of the Acme Steel Company; secretary, D. W. C. Becker, director, traffic management department of the LaSalle Extension University; and treasurer, R. J. Wallace, traffic manager of the Jaques Manufacturing Company.

### Scrap Prices Fixed

The Price Stabilization Division of the National Defense Advisory Commission has announced effective April 3 ceiling prices with grade differentials for railroad



and other iron and steel scrap. The key price on railroad old material is \$21 Pittsburgh for No. 1 heavy melting steel, and ceiling prices are established at which each of six specified railroad grades may be sold to or purchased by a consumer.

Formulas are set up by which prices of other grades of railroad scrap may be computed, based on a railroad's past experience. Maximum export prices from Atlantic Coast ports are the maximum prices established for the domestic consumer at the nearest consuming point, less transportation charges f.a.s. point of export, and plus a charge of \$1 to cover various expenses incident to exporting.

### The Canadian Roads in February

In February the Canadian Pacific had net operating revenues totaling \$2,608,569—an increase of \$636,148. Gross at \$14,107,338 was up \$2,191,919 and expenses at \$11,498,769 were up \$1,555,771. For the two months, gross, expenses and operating net, respectively, were \$28,792,684, \$23,518,353 and \$5,274,331—representing increases (in the same order) of \$4,632,720, \$3,159,316 and \$1,473,403.

The Canadian National earned \$2,609,117 of operating net in February (up \$845,929). Operating revenues were \$20,243,494 (up \$2,520,738) and expenses were \$17,634,377 (up \$1,674,809). For the two months, revenues were \$41,170,461, expenses were \$35,410,950, and operating net was \$5,759,511—representing increases, respectively, of \$5,845,970, \$3,521,443 and \$2,324,527.

### No Committee Action on Transport Study Board

The Senate committee on interstate commerce has not yet acted on the appointments to the transport-study board called for in the Transportation Act of 1940, which were sent to the Senate by President Roosevelt on March 20. Biographical sketches and photographs of the three nominees—Wayne Coy, Charles West, and Nelson Lee Smith—were published in the *Railway Age* of March 29, page 565.

One reason for the delayed committee action is understood to be the request of members now on an assignment to investigate a proposed Denver & Rio Grande Western branch-line abandonment in Colorado that the matter be deferred until their return to Washington. Also, it is understood that hearings on the nominations may be requested.

Meanwhile, as noted in last week's issue, the first attempt to obtain funds for the board failed when a Senate-House conference committee eliminated a \$50,000 item for that purpose which the Senate had added to a deficiency appropriation bill which happened at the moment to be on its way through the Senate.

### Bills in Congress

Senator Andrews, Democrat of Florida, has introduced S. 1255 "to provide for cheaper rail and bus transportation for officers, enlisted men, and nurses of the Army, Navy, Marine Corps, and Coast Guard when on leave of absence or furlough." The bill stipulates that the Secretaries of War and of the Navy would issue certi-

icates authorizing the purchase of rail or bus transportation at the rate of one cent per mile; railroads and bus lines upon return of the certificates to the Secretaries would be reimbursed for the difference between the one-cent-per-mile rate and their regular fares.

Representative Osmer, Republican of New Jersey, has introduced H. R. 4192, which would establish in the federal government an executive Department of Air to be administered by a Secretary for Air. The secretary would administer all military or naval or civil air units now attached to the Departments of War and Navy and Commerce.

Approving an adverse report from one of its sub-committees, the House committee on judiciary has tabled H. R. 2957, the bill introduced by Representative Thill, Republican of Wisconsin, to amend section 77 of the Bankruptcy Act to make claims for personal injuries to employees and others preferred claims in railroad reorganization proceedings.

### Equipment Depreciation Orders

Equipment depreciation rates for four railroads, including the Illinois Central, have been prescribed by the Interstate Commerce Commission in a new series of sub-orders and modifications of previous sub-orders in No. 15100, Depreciation Charges of Steam Railroad Companies.

Prescribed rates for the I. C. are as follows: Steam locomotives, 3 per cent; electric switchers, 2.82 per cent; Diesel-electric switchers, 3.92 per cent; Diesel electric road locomotives, 6 per cent; freight train cars, 4 per cent; articulated streamlined passenger train, 8.14 per cent; non-articulated streamlined passenger train, 3.84 per cent; Diesel rail motor cars, 4.85 per cent; all other passenger-train cars, 2.75 per cent; floating equipment, 2.5 per cent; work equipment, 3.5 per cent; miscellaneous equipment, 12 per cent. The other three roads involved in the present series of orders are the Donora Southern; Genesee & Wyoming; and Lake Erie, Franklin & Clarion.

### Record Wheat Movement Anticipated

Plans for the organized co-operation of shippers, railroads and receivers in moving this year's wheat crop, which promises to be the largest on record, were formulated at the nineteenth annual and fifty-ninth regular meeting of the Trans-Missouri-Kansas Shippers Board at Kansas City, Mo., on March 26. According to L. M. Betts, manager of the Car Service Division of the Association of American Railroads, the task of moving this year's record yield will be especially difficult and requires the closest co-operation of shippers, railroads and receivers. The demand for cars to handle defense traffic and a general increase in business is greater this year than last. In addition, the liquidation on farms of millions of bushels of stored wheat late in April and May when government crop loans mature will utilize many freight cars at a time when the railroads usually build up a reserve to move the new crop. Mr. Betts also reminded shippers that railroads are not going to be able to spare freight cars for grain stor-

age at terminal markets even when elevator facilities are taxed to the limit. In the past, as many as 4,000 cars were temporarily used for storage space, he said.

### A. A. R. Directors Meeting

Directors of the Association of American Railroads, holding their regular monthly meeting in Washington, D. C., on March 27, heard the usual report on the equipment situation from C. H. Buford, A. A. R. vice-president in charge of the Operations and Maintenance Department. Describing the Buford report generally, an A. A. R. spokesman said that it showed that everything remains "clear," with defense shipments moving in proper fashion to camps, ports, etc.

Ralph Budd, transportation member of the National Defense Advisory Commission, attended the meeting and is understood to have told the executives again that he sees no reason for concern about the transportation situation. Mr. Budd is reported to have pointed out how current car loadings are checking with expectations that this year's loadings will be about nine per cent above 1940's. In that connection he explained that recent weeks have reflected higher percentage increases because the comparisons are with a 1940 period before the upturn had begun. He does not anticipate that such higher percentage increases will become cumulative to point of upsetting the estimated rise of nine per cent for the year as a whole.

Aside from this discussion of the equipment situation and some consideration of railway labor's proposals to utilize railway shops for defense production, the meeting was concerned with internal A. A. R. affairs.

### Policy on the Location of New Defense Plants

The National Defense Advisory Commission has transmitted to the Office of Production Management for reference to the recently-established Plant Site Committee a statement of policy on the location of new defense facilities. The policy is based upon "experience gained during the past ten months."

The principles which the Commission says "must govern the location of new industrial facilities" are set forth as follows:

1. That sites be avoided in cities or regions where defense orders are absorbing or are likely to absorb the available labor supply, or to congest housing, transport or other facilities.
2. That every possible preference be given to locations where large reserves of unemployed or poorly employed people are available and where industrialization during the defense period will contribute to a better long-run balance between industry and agriculture. These conditions are particularly acute in many areas of the South and West.
3. That where facilities must be located in the present industrial areas, special attention be given to regions which have suffered a decline in their peacetime industries or to cities which have not been heavily engaged in defense production.
4. That the proper location of new plants, the wider distribution of defense contracts, and an aggressive policy to promote the sub-contracting of the larger defense orders held by private contractors, all be considered essential parts of a well-rounded program to obtain larger use of the human and material resources of the country in the defense effort.

Except as specified by statute, the statement points out, the responsibilities of the National Defense Advisory Commission in the location of plants will be taken over by the Plant Site Committee. The Commis-



sion recommends that the new Plant Site Committee be provided with a technical staff capable of giving detailed study to proposed defense locations and that it work closely with the Army and Navy at all stages in the consideration of new sites.

### Freight Car Loading

Loadings of revenue freight for the week ended March 29 totaled 792,125 cars, the Association of American Railroads announced on April 3. This was an increase of 23,617 cars, or 3.1 per cent, above the preceding week, an increase of 163,204 cars, or 25.9 per cent, above the corresponding week last year, and an increase of 191,434 cars, or 31.9 per cent, above the comparable 1939 week.

As reported in last week's issue, the loadings for the previous week ended March 22 totaled 768,508 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

#### Revenue Freight Car Loading

For Week Ended Saturday, March 22

Districts	1941	1940	1939
Eastern .....	174,468	137,026	135,612
Allegheny .....	174,266	125,580	120,568
Poahontas .....	54,699	44,799	39,885
Southern .....	120,105	99,965	97,811
Northwestern .....	84,023	71,987	70,206
Central Western .....	109,744	96,151	93,050
Southwestern .....	51,203	44,867	44,816
<b>Total Western Districts ....</b>	<b>244,970</b>	<b>213,005</b>	<b>208,072</b>
<b>Total All Roads</b>	<b>768,508</b>	<b>620,375</b>	<b>601,948</b>
Commodities			
Grain and grain products .....	36,913	31,441	31,679
Live stock .....	10,817	10,797	11,315
Coal .....	167,512	118,764	110,278
Coke .....	14,061	8,540	7,163
Forest products .....	38,886	33,346	28,121
Ore .....	14,226	10,501	7,577
Merchandise l.c.l. ....	158,661	147,685	153,719
Miscellaneous .....	327,432	259,301	252,096
March 22 .....	768,508	620,375	601,948
March 15 .....	758,693	619,388	591,166
March 8 .....	741,922	620,596	588,426
March 1 .....	756,670	634,636	594,424
February 22 ...	678,493	595,383	556,742

Cumulative Total,  
12 Weeks ... 8,590,076 7,541,609 6,947,560

*In Canada.*—The weekly summary by the Dominion Bureau of Statistics shows car-loadings for the week ended March 22 at

56,090, as compared with 58,131 in the previous week and 40,989 last year (last year's total including the Good Friday holiday).

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
March 22, 1941 .....	56,090	29,749
March 15, 1941 .....	58,131	30,474
March 8, 1941 .....	58,806	30,754
March 23, 1940 .....	40,989	24,006
Cumulative Totals for Canada:		
March 22, 1941 .....	642,823	342,157
March 23, 1940 .....	560,913	289,118
March 25, 1939 .....	485,334	254,338

### Annual Inventory—Additions

Details relating to Bessemer & Lake Erie inventories of materials and supplies on hand December 31, 1940, and the consumption of materials and supplies during

	On Hand Dec. 31, 1940	Increase Per Cent	Months Stock	Used 1940	Inc. Per Cent
Fuel .....	\$14,152	-40	10*	\$499,496	0
Rail, new .....	128,679	5		115,393	-7
Rail, S. H. ....	14,372	-65		89,240	6
Crossties .....	17,236	65	1	193,598	-5
Miscellaneous .....	699,111	31	5.6	1,552,370	37
Total .....	873,550	20	4.3	2,450,097	26
Scrap .....	36,159			134,902	
Sales, ex. scrap .....				49,235	
Grand Total .....	909,709				
Per Cent of Op. Exp. ....	10.8				

\* Days supply.

the calendar year of 1940, were received too late for publication with the figures of other Class I railroads in the *Railway Age* of March 29 and are presented in the accompanying tabulation.

### Magazine for O. & W. Staff, Customers and Neighbors

The first issue of the "Ontario & Western Observer" is in circulation. Designed to arouse the interest of passengers, shippers, potential customers, residents of the towns along the line, and employees of the 576-mi. N. Y. O. & W. in the road and activities in the relatively concentrated area it serves, the new monthly publication is being distributed free through various channels, on a ratio about 25 per cent to employees and 75 per cent to the public. Distribution channels are as follows:

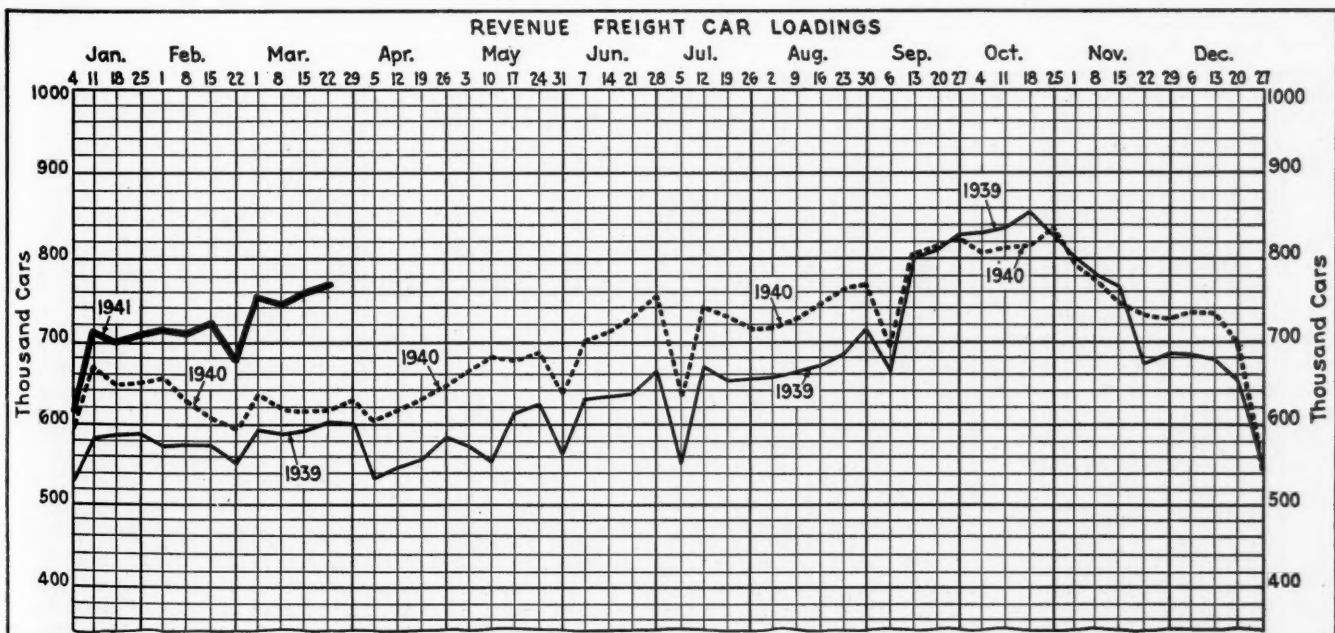
(1) A copy is distributed to each passenger on O. & W. trains leaving Weehawken terminal, N. J.; (2) local station agents receive enough copies for distribution to all shippers and receivers of freight in their towns and schools, hotels and doctors' and dentists' offices; (3) some 600 libraries receive copies; (4) 1,500 copies are sent to off-line traffic officers and (5), 2,000 copies are mailed to shippers not reached by any of the previous channels.

The 14 pages of the initial issue contain, among other things, an article describing the business of a large shipper located on the line; two pages of employee "personals" contributed by special reporters; an analysis of the community and business life of Middletown, N. Y.; a double-page

spread of photographs taken along the road and a page devoted to scholastic and social activities of high schools and towns along the line. Inclusion of the latter, according to the editor, is for the purpose of stimulating interest in the railroad among the younger generation. The "Observer" is supported by advertising having appeal to individual consumers, typical of which is a full-page advertisement by Sears, Roebuck & Co. It is edited and published by Walter T. Thorpe on an independent basis.

### Canadian Roads Increased Earnings in '40

Annual reports of the Canadian Pacific and Canadian National for 1940 show heavy increases in operating revenues over the preceding year. Gross revenues of the Canadian Pacific increased 13 per cent.





Freight revenues of the road increased 12.9 per cent, and were greater than those any year since 1929. Operating expenses increased 10.2 per cent. The ratio of operating expenses to gross earnings was 74.61 per cent, the lowest of any year since 1917, with the exception of 1926, when it was 74.41 per cent.

The Canadian National's operating revenues were up 21.4 per cent over the preceding year while operating expenses rose 10.7 per cent. Net operating revenue was \$45,007,411, as compared with \$20,854,418.

President E. W. Beatty of the Canadian Pacific points out that 2,399 officers and employees of the road had enlisted in the armed forces up to the end of 1940, while a large number of others are preparing for military or naval service in reserve units and training corps. During the year directors of the road authorized a contribution of \$150,000 to a committee established under the auspices of the government to conduct special scientific research in connection with war activities. A total of 1,859 Canadian National employees had enlisted for active service in the armed forces as of the close of the year. In addition 53 officers and employees have been "loaned to the government" for the duration of the war, and a large number of officers and employees with special qualifications have been released for temporary periods.

#### I. W. C. Lost \$273,725 in 1940

The government-owned Inland Waterways Corporation experienced a consolidated net loss of \$273,725 in the calendar year 1940, as compared with a red figure of \$299,950 for 1939, according to a statement made recently by I. W. C. President Chester C. Thompson at hearings before a sub-committee of the House committee on appropriations on the Department of Commerce Appropriation Bill for the fiscal year ending June 30, 1942. The bill carries no appropriations for I. W. C., because the latter has always operated by paying its own expenses out of its revenues.

The aforementioned 1940 deficit, Mr. Thompson explained, came after there had been included in the accounts a charge of \$653,049 for depreciation. The Corporation's consolidated gross revenues in 1940 totaled \$7,569,353 as compared with \$7,046,138 for 1939. Under questioning from sub-committee members Mr. Thompson told how the tonnage handled in 1940 was 125,000 tons in excess of that moved in 1939; but the 1940 operations were more expensive because there was a large increase in business moving upstream on the Mississippi. Meanwhile, he assured the committee that the Corporation "has ample funds to carry on its work."

Asked how long before it would be in a position not only to sustain itself but also to return some money to the Treasury, Mr. Thompson said: "We hope to reach that point some time, but, frankly, I do not see it in the immediate future." Nevertheless he is convinced that "the Corporation serves a very useful purpose on and adjacent to the rivers upon which it operates." I. W. C., its president said, now has only one common-carrier competitor on the Mississippi, although there are "many substantial contract carriers who are competitors." Discussing the pros-

pects for extension of services on the Missouri, Mr. Thompson told of experience with adverse operating conditions between St. Louis and Kansas City, adding: "On the theory that a chain is no stronger than its weakest link, we do not feel justified in considering the extension of service up the Missouri River until channel conditions are improved on the lower stretch of the river, which is the important part of the Missouri." Later on he cited the Transportation Act of 1940 in this connection, pointing out that I. W. C. would have no "grandfather" rights for Missouri river operations above Kansas City.

#### Club Meetings

The Eastern Car Foreman's Association will hold its next meeting at the Engineering Societies building, New York, on April 11 at 8 p. m. C. K. Hoch, assistant superintendent of safety, Reading, will speak on the subject: "The Handling and Transportation of Explosives and Other Dangerous Articles."

The Traffic Club of Newark, N. J., will hold its next meeting at the Robert Treat hotel on April 7 at 8 p. m. Motion pictures, talks and a quiz program will be presented in connection with the national "Perfect Shipping Month" program. The Traffic Club forum on "Warehousing and Distribution" will be held at the same place on April 14.

The New England Railroad Club will hold its next meeting at the Hotel Touraine, Boston, Mass., on April 8. Professor A. V. de Forest of the Massachusetts Institute of Technology and president of the Magnaflux Corporation, will speak on the subject "Magnaflux on the Railroads." The annual banquet and entertainment of the club is scheduled for May 18 at the Hotel Statler, at 7 p. m.

Transportation and illumination groups of the New York section, American Institute of Electrical Engineers, will hold a joint meeting in the Engineering Societies building, New York, on April 10 at 7:30 p. m. W. S. H. Hamilton, equipment electrical engineer, New York Central system, will discuss "Modern Railroad Car Lighting." The talk will place particular emphasis on the adaptation of fluorescent lamps in the field of railroad cars and will be supplemented by some of the lighting apparatus described and by lantern slide illustrations.

#### Money for Rivers and Harbors

Appropriations totaling \$63,100,000 for rivers and harbors work are carried in the War Department Civil Functions Appropriation Bill for the fiscal year ending June 30, 1942. The bill (H.R. 4183) was reported from the House committee on appropriations on March 26 and passed by the House on the following day.

Included in the aforementioned total is \$20,000,000 for new work, and \$43,100,000 for the maintenance of existing projects. The committee report shows that fiscal 1942's \$20,000,000 for new work will be spent on a number of projects which have an estimated total cost of \$917,434,390; and which will not be completed until \$85,238,250 is spent in addition to the 1942 outlay. Largest of the projected expenditures for fiscal 1942 are as follows: Mississippi

river, between the Missouri and Minneapolis, Minn., \$4,200,000; New York and New Jersey channels, \$2,350,000; Missouri river, Kansas City, Mo., to Sioux City, Iowa, \$1,700,000; New York harbor, \$1,662,250; Missouri river, mouth to Kansas City, \$1,500,000; Sabine-Neches waterway, Tex., \$1,066,500; Louisiana-Texas Intracoastal waterway—New Orleans to Corpus Christi, \$1,000,000.

For the current fiscal year, ending June 30, 1941, the committee report said there have been appropriations totaling \$53,629,000 for new work and \$45,745,310 for maintenance. "Apart from the \$20,000,000 in the accompanying bill for new work," it went on, "there remains to be appropriated for all authorized river and harbor projects approximately \$179,000,000, of which sum roundly \$120,000,000 applies to projects of immediate value to navigation."

Among the bill's items involving the Panama Canal is an appropriation of \$34,932,000 and a contract authorization for \$79,000,000 to continue the work on the \$277,000,000 job of building an auxiliary set of locks.

#### President Indefinite About St. Lawrence Legislation

President Roosevelt said at his April 1 press conference that he did not know what would be the form of legislation designed to make the St. Lawrence power and seaway agreement effective, nor when such legislation would be introduced in Congress. As noted in the *Railway Age* of March 29, page 574, the President sent the recently-negotiated United States-Canadian agreement to Congress on March 21 with a brief message which included an expression of his expectations "to request introduction, in due course, of legislation designed to make this agreement effective."

Meanwhile debate on the project has continued in extensions-of-remarks inserted into appendices to the Congressional Record, while some discussion of the matter broke out on the floor of the House during the April 1 session. There Representative Fish, Republican of New York, called the project "an extravagant political fraud being wished on the American people by President Roosevelt under the guise of national defense." The "absurdity" of the defense "subterfuge", Mr. Fish went on, "is clearly demonstrated by the fact that it will take at least four years to complete this project. If 'half a billion dollars' must be spent for canals for defense purposes, Mr. Fish would prefer to dig 'a sea-level canal in Nicaragua or at Panama.'" The St. Lawrence project, as he views it, would be "harmful to the interests of 30,000,000 consumers on the Eastern seaboard, adding insult to injury, as they pay approximately one-half of the federal taxes."

On the other hand, Representative Pittenger, Republican of Minnesota, said "in all seriousness" that "the St. Lawrence seaway project is the greatest engineering project of modern times." When the matter comes up, Mr. Pittenger believes "the statesmanship in this House will rise above sectional lines and will disregard the selfishness of the propaganda artists and the powerful enemies of the seaway who are at work day and night scattering



misinformation about this project with the intention to mislead you in your votes." A similar expression of hope that the agreement would be approved came from Representative Sabath, Democrat of Illinois, who added an expression of his fear that "under the precedents the House may not have a voice in the matter." In the latter connection, the President's message indicated that approval on the part of the United States would come with a majority vote in both houses of Congress. The previous agreement, rejected in 1934, was in the form of a treaty which required a two-thirds vote in the Senate.

Among the extensions of remarks in recent issues of the Record was one in the March 31 issue where Representative Beiter, Democrat of New York, inserted a comparative analysis of the treaty rejected in 1934, a treaty proposed in 1938, and the present agreement.

### N. Y. Central Runs Last Train on Manhattan Streets

Virtual completion of the West Side Improvement program, initiated in New York by the New York Central in 1925, was marked on March 31 when the road closed its 17th street freight yard and the tracks connecting it with the 33rd street yard laid along Tenth avenue, New York. The last scheduled movement of freight on the surface of the New York City street left the 17th street yard at 10:30 a. m., March 29, and with its passage the road permanently abandoned maintenance of the "Tenth avenue cowboys" who have been preceding trains along New York's west side streets since 1850.

Movement of trains on New York street was drastically cut in 1934 when the new St. John's Park freight terminal, connected with the 33rd street yard by elevated tracks, was opened. Since then three pony riders, each working an eight-hr. shift, have limited their range to between 17th and 30th streets. When they hang up their saddles, red flags and red lanterns for the last time the Central will have completed the removal of all its freight tracks from the surface of Manhattan streets, excepting three short industrial sidetracks immediately adjacent to the 33rd street and

72nd street yards. All other tracks are either above or below street levels throughout the 13 miles of the West Side Improvement.

The "Tenth Avenue cowboys" entered upon their existence in 1850 as the result of a city ordinance which read "that the Hudson River Railroad Company . . . are permitted to propel their cars from Chambers Street to Thirty-first Street, by their locomotive, or 'Dumb Engines,' upon the condition that the same shall not be run at a greater speed than six miles an hour; and also, that they shall employ a proper person to precede the trains on horse back, to give the necessary warning in a suitable manner of their approach, and be under such further direction as the Common Council may from time to time prescribe."

### U. S. Supreme Court Decisions

Several cases affecting the railroad industry were decided by the United States Supreme Court at its session on March 31. In one case of Earl Moore, Petitioner, versus the Illinois Central the court ruled that railroad employees who hold grievances against their employers under collective bargaining contracts need not exhaust their remedies under the Railway Labor Act before resorting to the courts to sue for back pay or damages.

The petitioner, Earl Moore, a former switchman on the Illinois Central, had sued the carrier for damages charging wrongful discharge under a contract between the railroad and the Brotherhood of Railroad Trainmen. Moore had obtained a judgment which the Fifth Circuit Court of Appeals set aside on the ground that he failed to commence legal action within the statutory three-year period allowed by Mississippi law. In holding in favor of Moore the Supreme Court reversed the Circuit Court of Appeals.

In another case of the United States of America, Petitioner, versus the Chicago, Milwaukee, St. Paul & Pacific and others, the high court reversed and remanded for further testimony a lower court decision holding that the government must compensate the railroad and the Western Union Telegraph & Cable Company for damages to track beds and telegraph lines caused by

the construction of a dam on the Mississippi in Wabasha and Winona counties, Minn.

At the trial in the condemnation proceedings, says the court opinion, the government offered to prove that four segments of the embankment lie between the ordinary high and ordinary low water marks of the river; are, therefore, subject to the federal power to improve navigation; and that any injury to them by additional flooding is an incident of the exercise of the power and not the subject of compensation.

The railroad and the telegraph company objected to the offer as immaterial for the reason that neither before nor after the improvement did the embankment constitute an obstruction or menace to navigation and its maintenance was and is, therefore, a right of private property, the injury to which, in the prosecution of a federal project, entitled the owner to compensation.

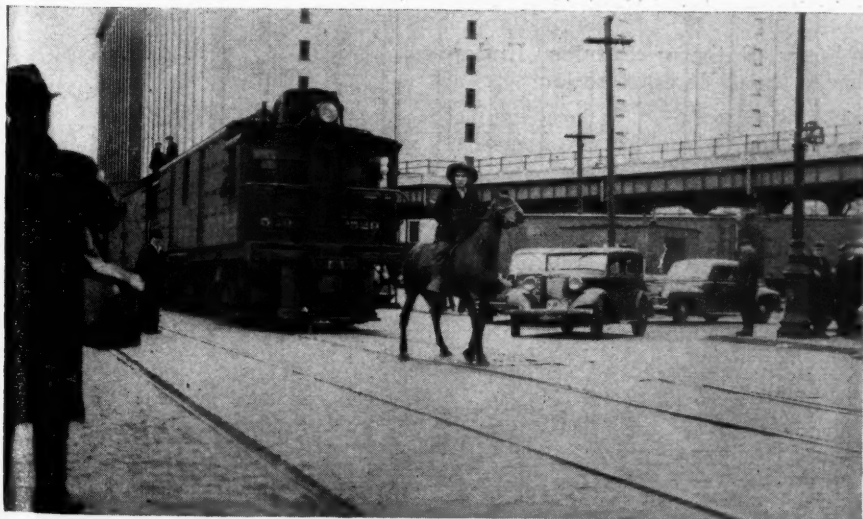
In the case of Gray and others versus Powell, Jr. and others, the court, by a four to four decision, affirmed a lower court decision holding that certain coal mining activities of the Seaboard Air Line are exempt from the price fixing provisions of the Bituminous Coal Act. The effect of the decision was to overrule the position of the Director of the Bituminous Coal Division that the company had employed a contract "device" to protect itself from price increases resulting from the operation of the Act. During oral argument on the case counsel for the government told the court that a decision for the company would point the way for the resumption of "cut-throat competition" in a large part of the industry.

### February Truck Volume 29.2 Per Cent Over 1940

Revenue freight transported by motor truck in February declined nine per cent under January, but represented an increase of 29.2 per cent above the volume carried in February, 1940, according to reports compiled by American Trucking Associations, Inc. The A. T. A. index figure, computed on the basis of the average monthly tonnage of the reporting carriers for the three-year period 1938-1940 as representing 100, stood at 127.09 for February, as compared with January's 131.27.

Comparable reports were received from 198 motor carriers in 33 states. The reporting carriers transported an aggregate of 1,189,775 tons in February, as against 1,228,894 tons in January and 921,058 tons in February, 1940.

Almost 77 per cent of all the freight transported in the month was reported by carriers of "general freight." The volume of freight in this category decreased 1.8 per cent under January, but represented a 30 per cent increase over February of the previous year. Transporters of petroleum products, accounting for slightly more than 10 per cent of the total tonnage reported, showed a decrease of 11 per cent in February, as compared with January, but their volume increased 22.5 per cent over February, 1940. Movement of new automobiles and trucks, constituting a little more than seven per cent of the total tonnage, increased 0.1 per cent over January, and 28 per cent over February, 1940. Haulers of



The Last Scheduled Freight Train on Manhattan Streets and a Central "Cowboy" Pose for News Photographers



iron and steel products reported about three per cent of the total tonnage. The volume of these commodities showed a decrease of 11.4 per cent in February, as compared with January, but it represented an increase of 5.4 per cent over February of last year. A little more than two per cent of the total tonnage reported was miscellaneous commodities, including tobacco, textile products, bottles, building materials, coal, cement and household goods. Tonnage in this class decreased nine per cent under January, but held 11.3 per cent over the volume hauled in February, 1940.

## TNEC "Expert" Probes Transport

(Continued from page 612)

transportation system as it now exists. The level of railway rates, as a whole, is probably not excessive. But the rate structure does demonstrate the fact that competitive rates will be established on those goods and between those points where competitive conditions obtain and that higher rates will be collected on those goods and between those points where the railroad stands in the position of a monopolist."

Continuing his discussion of the Pullman Company, the author goes on to say that "even today the character of the service offered on the great majority of its cars is identical with that provided two decades ago. And the company has shown no disposition to recover its former share of the market by lowering its rates. In 1937, when its rates were at the highest point in its history, it applied to the Interstate Commerce Commission for a further increase of 10 per cent which was granted in 1938."

"Pullman's reluctance to adapt itself to changing conditions," continues the monograph, "may be attributed largely to two facts. The first is the fact that the present level of rates is sufficiently high to enable the company to break even, or, more usually, to make a profit while operating at but a fraction of full capacity. The second is the fact that the company's contractual arrangements with the railroads are such as to compel these carriers to assume a major part of the risks involved in fluctuations in the volume of Pullman traffic . . . Pullman's contracts with the railroads are so drawn that the company collects some form of payment from the roads for the operation of each car that yields it less than a stated sum per annum, and makes some form of payment to roads for the operation of each car that yields more than a stated sum or produces a profit."

"The company is thus protected against loss when traffic declines and forced to share its profits when traffic increases. Its incentive to attract additional business either by increasing efficiency, cutting costs, and reducing rates, or by improving the quality of its service is weakened accordingly. In eight of the years in the decade from 1929 to 1939 when railroad followed railroad into bankruptcy and receivership, Pullman made a profit. Protected by a rate level that enabled it to break even at less than 40 per cent of capacity and by contracts which shifted a large part of its

risks to others the company was in a position to wait and hope for better days."

"Pullman," continues the monograph, "enjoys a marked advantage in negotiations with the railroads. Its contracts, running for long terms, can be canceled by either party six months before they expire. The roads, however, are not in a position to exercise their right of cancellation. Since Pullman is the only purveyor of sleeping car service, they cannot buy it elsewhere; and since a large part of this service involves continuous travel over connecting lines, they cannot undertake to provide it themselves without arranging a complicated series of intercompany contracts. Pullman, on the other hand, is free to cancel and is in a position, by threatening to withdraw its service from a road or to provide it with inferior service, to force the latter to accept its terms. The Department of Justice now charges, in a complaint filed in an antitrust suit on July 12, 1940, that the company has taken advantage of its position to impose onerous provisions on the roads, requiring them to purchase its services and equipment exclusively, preventing them from obtaining lightweight, high-speed, streamlined equipment, supplying them with antiquated equipment, and forcing them to pay a large part of the costs involved in its modernization."

The monograph makes brief mention of the status of competition in the trucking industry. After pointing out that both the state and federal commission have adopted the policy of denying numerous applications for certificates and permits, thus protecting trucking firms already established and forestalling further competition between highways and railways, the author has this comment to make: "In the railway industry, it was the original purpose of regulation to prevent monopolistic price increases by establishing maximum rates. In the trucking industry, it is the apparent purpose of regulation to prevent competitive price reductions by establishing minimum rates."

The monograph contains a brief discussion of the monopoly features of pipe line companies, but does not treat the subject as thoroughly as it was dealt with in Monograph No. 39, details of which were given in the *Railway Age* of March 15, page 490.

## Military Railway Service Undergoes Reorganization

The War Department has announced that the Military Railway Service headed by Colonel Carl R. Gray, Jr., of St. Paul, Minn., executive vice-president of the Chicago, St. Paul, Minneapolis & Omaha, is undergoing "extensive reorganization and development."

The Military Railway Service is composed of units affiliated with commercial railway systems throughout the United States, units being officered by the railway system in time of peace from among their employees. Only one of these units will be activated, plans being under way to activate a railway operating battalion June 1, 1941. Reserve officers will be attached to the battalion from among those assigned to all operating battalions, and who volunteer for such duty. In the event of war, the Military Railway Service would be activated for the communication zone in

any theater of operation and would be used to operate and maintain a standard gage railway system forward of the area in which commercial operation would be allowed to continue. It would also supervise such commercial operation as might be continued in the theater of operations.

The units of the Military Railway Service are scheduled for mobilization at times designed to secure enough units to provide adequate railway service for the troops in the field. In addition to the units with prescribed mobilization dates, additional units have been affiliated with railroad companies but are not organized in peace. The sponsoring railroad company would form and officer these units if called upon to do so in time of war. Each company would also be asked to supply as many key enlisted men as it could. The remainder of the enlisted personnel would have to be secured from the designated replacement centers.

Official designation of Colonel Gray's office is Engineer Headquarters, Railway, and his title, manager, Military Railway System. Subject to his jurisdiction the following M. R. S. engineering battalions, or headquarters units, have been continued as peace time units or are being newly formed by the sponsoring railroads indicated:

AT&SF	713th†	N&W	755th†
ACL	703rd*	PRR	717th†
C&NW	720th†	PRR	724th†
CRI&P	725th†	PRR	730th†
CS&PM&O	714th†	Rdg	712th†
CCC&StL	718th†	SAL	722nd†
CCC&StL	753rd‡	South	727th†
DL&W	715th†	SP	705th†
GN	704th*	SP	716th†
L&N	728th†	SP	754th†
MP	711th†	SP	719th†
NYC	701st*	UP	702nd*
NYC	721st†	UP	723rd†
NYNH&H	729th†	Wabash	726th†

† Oper. Battalion. \* Hq. ‡ Shop Battalion.

In addition, five grand divisions, 22 operating battalions, and three shop battalions are rapidly being accepted for affiliation by selected railroad companies, to be formed when and if needed in war. Seventeen of these operating battalions have been organized for some time, but are being discontinued as peace time units.

## Secretary of Commerce Endorses Perfect Shipping Campaign

Efforts of shippers and railroads to stimulate the proper packing and careful handling of shipments by a campaign conducted in April, were endorsed by Jesse H. Jones, secretary of commerce in a statement issued in Washington on March 31. "Concerted and determined action to reduce loss and damage claims on goods transported by the country's railroads," the statement reads, "is more than ever a constructive effort at this time. National Defense needs have increased rail traffic; at the same time, they have increased the need for proper packing and careful handling so that vitally needed products will be delivered in undamaged condition, ready for instant use."

"The purpose of 'Perfect Shipping Month' is to reduce to a minimum the economic waste and disturbance of industry caused by damage to shipments in transit. It strives to achieve this objective by means of increasing co-operation between the users and suppliers of transportation in the United States. With these aims I am wholeheartedly in accord. The results ex-



pected from the 'Perfect Shipping Month' campaign of 1941 in improving packing and handling methods and thus reducing loss and damage should be of tangible benefit to the nation as a whole in its current large scale industrial and transportation effort.

"Since the work to reduce loss and damage was specially organized by the United States railroads in the year 1920, steady progress has been made in perfecting packing, loading and handling methods, and there has been a very substantial reduction in freight loss and damage. One of the best indications of the progress that has been made is the fact that the loss and damage per car has come down from \$2.66 for 1920 to 54 cents for 1940.

"I am gratified by such evidence which demonstrates the unlimited potentialities awaiting alert and efficient industrial management."

### Pipeline Issue is Debated in House Hearing

Hearings on the general subject of petroleum and national defense got under way on March 27 before a special House interstate commerce subcommittee headed by Representative Cole, Democrat of Maryland, which had been created for that purpose. Although the subcommittee had decided to take up all phases of petroleum and national defense, it readily became apparent at the outset of the hearing that the question of pipelines would overshadow all other questions.

The two pipelines which the subcommittee decided to hear testimony on were the projected Plantation line which would extend from Baton Rouge, La., to Greensboro, N. C., and the already-laid but not-completed Southeastern line which would run from Port St. Joe, Fla., to Chattanooga, Tenn. The Southeastern line, according to the testimony before the subcommittee, is already laid, except for certain connections across state highways and railroads in Georgia, the pipeline having so far failed to get legislation passed in that state which would grant it the power of eminent domain to condemn these crossings. The Plantation line is projected and the company has asked permission from railroads in the southeastern states to cross their rights-of-way, but, according to testimony, all but one of these requests have been denied by the railroads involved. Testimony also revealed that the Southeastern line is controlled by the Gulf and Pure Oil companies, while Standard of New Jersey and Standard of Kentucky would finance the Plantation line.

Among the witnesses testifying were Robert E. Wilson, consultant on petroleum in the Office of Production Management; R. T. Haslam, vice-president and general sales manager of the Standard Oil Company of New Jersey, and general sales manager of the Standard Oil Company of Louisiana; Steve Clay, counsel for the Southeastern Pipeline Company; W. L. Stanley, chief public relations officer of the Seaboard Air Line; H. H. Simms, secretary and traffic manager of the Atlanta & Saint Andrews Bay; A. B. Conger, district counsel for the Seaboard Air Line; and J. G. Luhrs, executive secretary-treasurer of the Railway Labor Executives Association.

Mr. Wilson, who is also the president of

the American Oil Company, testified generally concerning the need for petroleum in national defense, telling the committee that this country has sufficient oil to meet all its demands, but that the real question is one of transportation. He favored more pipelines in the southeastern part of the country, specifically endorsing the Southeastern and the Plantation lines. He also told the committee that he could not understand the refusal of the Georgia legislature to grant oil companies the right of eminent domain to condemn land on which to construct pipelines. In answering a question from the committee on the adequacy of rail transportation should it be impossible to operate tankers around Florida, Mr. Wilson declared that "rail transportation would be utterly inadequate to carry oil for the Atlantic seaboard if tankers could not operate." This statement was later disputed by railroad witnesses.

Mr. Haslam urged the committee to grant the companies the right of eminent domain so that the lines could be constructed. His arguments were grounded on the two premises of economy and national defense. He stressed the facts that the Plantation line would be much more economical than the present rail and truck transportation from the seaboard ports and then pointed out to the committee the fact that recently President Roosevelt had asked the Georgia legislature to grant pipelines authority to condemn land in the interests of national defense. He definitely promised the committee that if the line were constructed, the public would benefit through lower gasoline prices.

The line which the Plantation company would construct would be a gasoline line, said Mr. Haslam, and he added that it would cost about \$20,000,000, including terminals. The line would be 1,261 miles long and would have branches running out to principal cities in the southeast. He also contended that it would be a common carrier which could be used by other companies. Questioned as to how its construction would affect the railroads, Mr. Haslam told the committee that he felt the carriers would get more business from it than they now get from hauling the oil out from the ports.

Mr. Clay briefly described the Southeastern line, which is 448 miles in length. He also told the committee of the trouble his company had encountered in attempting to build it, being stopped at the present time from connecting up the line because of the failure to get the right-of-way over various railroads and highways. Mr. Clay asked the committee to recommend the passage by Congress of a general law or a special law granting authority either to all companies or to the two companies now concerned so that they could condemn rights-of-way. He cited the recent letter of the President asking Georgia to pass such a law.

Mr. Stanley, for the southeastern railroads affected by the two lines, opposed any action by the committee towards recommending the passage of any legislation to help the two companies. He also cited letters from various Army and Navy administrative officers pointing out that their respective departments were not interested in the Southeastern line from a

national defense standpoint. It appeared that these men had given their personal opinions but that later Secretary of the Navy Knox and Secretary of War Stimson had been prevailed upon to urge the President to recommend to the Georgia legislature the enactment of relief for the pipeline companies which the latter refused to do. Mr. Stanley also argued that such a letter from the President repudiated his former position that pipelines should be divorced from the oil companies.

Mr. Stanley urged the committee to take no action, saying that these two lines were "just an entering wedge" and the "beginning of the end" for the railroads in that part of the country as far as the oil traffic is concerned. He also told the committee that the carriers were willing and able to carry all the oil in the southeast that now comes into that territory, whether by tanker or truck. The railroad attorney also felt that to use the steel and men necessary to construct the Plantation line at this time would be highly unwise in view of the shortage of steel and labor for national defense.

Mr. Simms also opposed the construction of the lines, saying that his company was able to handle all the gasoline that was tendered to it. Asked whether he felt the President knew all the facts when he asked Georgia to enact relief for the pipelines, he said he felt that Mr. Roosevelt had relied on subordinates who were either misinformed or had some particular cause to further.

Mr. Conger also opposed the taking of any action by the Congress, and gave the committee a detailed legal discussion of the whole question of eminent domain. The opposition or organized railroad labor was voiced by Mr. Luhrs, who condemned the venture by asserting that the oil companies were hiding under the guise of national defense when what they were primarily interested in was making "huge profits." He cited the large profits which the pipeline companies have made over the years.

### Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

- ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago, Ill.
- AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, F. T. R. M. & O. R. R., 327 S. La Salle St., Chicago, Ill.
- AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. P. Soebbing, 1431 Railway Exchange Bldg., St. Louis, Mo. Annual meeting, October 21-23, 1941, San Francisco, Cal.
- AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York, N. Y.
- AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—F. O. Whiteman, Room 332, Dearborn Station, Chicago, Ill. Annual meeting, June 3-5, 1941, Hotel Stevens, Chicago, Ill.
- AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill. Annual meeting, January 16-17, 1942, St. Louis, Mo.
- AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Berger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill.
- AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—F. O. Whiteman, Room 332, Dearborn Station, Chicago, Ill. Annual meeting, October 14-16, 1941, Hotel Stevens, Chicago, Ill.
- AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York, N. Y.
- AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—G. E. Smith, New York Central R. R., La Salle Street Station, Chicago, Ill.
- AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—



W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—M. W. Jones, Baltimore & Ohio R. R., 1105 B. & O. R. R. Bldg., Baltimore, Md.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. H. Hunt, Tower Bldg., Washington, D. C.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York, N. Y.

Railroad Division, C. L. Combes, *Railway Age*, 30 Church St., New York, N. Y.

AMERICAN TRANSIT ASSOCIATION.—Guy C. Heckler, 292 Madison Ave., New York, N. Y.

AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St. N. W., Washington, D. C. Annual meeting, January 27-29, 1942, Nicollet Hotel, Minneapolis, Minn.

ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington, D. C.

Operations and Maintenance Department.—Charles H. Buford, Vice-President, Transportation Bldg., Washington, D. C.

Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.

Operating Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.

Transportation Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.

Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y. Annual meeting, October 14-15, 1941, Chicago, Ill.

Freight Station Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill. Annual meeting, June 17-19, 1941, Statler Hotel, St. Louis, Mo.

Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y. Annual meeting, June 2-3, 1941, Hotel Cleveland, Cleveland, O.

Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y. Annual meeting, June 24-26, 1941, Shirley-Savoy Hotel, Denver, Colo.

Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y. Annual meeting, April 8-10, 1941, Roosevelt Hotel, New Orleans, La.

Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y. Annual meeting September 23-25, 1941, Gibson Hotel, Cincinnati, Ohio.

Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.

Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.

Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.

Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y. Annual meeting, September 30-October 2, 1941, Broadmoor Hotel, Colorado Springs, Colo.

Mechanical Division.—Arthur C. Browning, 59 E. Van Buren St., Chicago, Ill. Annual meeting June 19-20, 1941, Hotel Jefferson, St. Louis, Mo.

Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago, Ill.

Purchases and Stores Division.—W. J. Farrell, 30 Vesey St., New York, N. Y. Annual meeting, June, 1941, Chicago, Ill.

Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, June 10-12, 1941, Denver, Colo.

Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington, D. C.

Car-Service Division.—E. W. Coughlin, Transportation Bldg., Washington, D. C.

Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington, D. C.

Accounting Division.—E. R. Ford, Transportation Bldg., Washington, D. C. Annual meeting June 24-26, 1941, Cosmopolitan Hotel, Denver, Colo.

Treasury Division.—E. R. Ford, Transportation Bldg., Washington, D. C. Annual meeting, June 24-26, 1941, Broadmoor Hotel, Colorado Springs, Colo.

Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Claim Agent, Alton R. R., 340 W. Harrison St., Chicago, Ill. Annual meeting, June 11-13, 1941, Browne Palace Hotel, Denver, Colo.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—R. Y. Barham, Armco Railroad Sales Company, 310 S. Michigan Ave., Chicago, Ill. Meets with American Railway Bridge and Building Association.

CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcl Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month

except June, July and August, Windsor Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—Frank Kartheiser, Chief Clerk, Mechanical Dept., C. B. & Q., Chicago, Ill. Annual meeting September 22-24, 1941.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—G. K. Oliver, 8238 S. Campbell Ave., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.

CENTRAL RAILWAY CLUB OF BUFFALO.—Mrs. M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—J. T. Bougher, 424 W. 33rd St. (11th floor), New York, N. Y.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—J. E. Goodwin, Gen. Foreman, Loco. Dept., Missouri Pacific R. R., No. Little Rock, (P. O. Little Rock) Ark. Annual meeting, September 23-24, 1941.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y. Annual meeting, September 23-24, 1941, Hotel Smetman, Chicago, Ill.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington, D. C. Annual meeting, 1941, St. Paul, Minn.

NATIONAL RAILWAY APPLIANCE ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Touraine, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September, and December, 29 W. 39th St., New York, N. Y.

PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box 3275, San Francisco, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, and second Friday of each alternate month, at Hotel Hayward, Los Angeles.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago, Ill.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 1647 Oliver Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 600 W. Jackson Blvd., Chicago, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago, Ill. Annual meeting, September 22-24, 1941.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 1647 Oliver Bldg., Pittsburgh, Pa.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone Section of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 903 Syndicate Trust Bldg., St. Louis, Mo. Annual meeting, May 21-22, 1941, Arlington Hotel, Hot Springs, Ark.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—F. O. Whiteman, Room 332, Dearborn Station, Chicago, Ill. Annual meeting, September 16-18, 1941, Hotel Stevens, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R. Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga. Ry., Savannah, Ga.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island, N. Y. Annual meeting, October 11-12, 1941, Cleveland, Ohio.

WESTERN RAILWAY CLUB.—W. L. Fox (Executive Secretary), Room 822, 310 S. Michigan Ave., Chicago, Ill. Regular meetings, third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

## Construction

**ALABAMA, TENNESSEE & NORTHERN.**—This company has asked the Interstate Commerce Commission for authority to construct 1.5 miles of industrial track in Mobile, Ala., to connect its lines with the plant of the Alabama Drydock & Shipbuilding Co.

**CHICAGO & EASTERN ILLINOIS.**—A contract amounting to \$40,935 has been awarded the Thomas McQueen Company, Forest Park, Ill., for the construction of a subway for 159th street in Cook County, Ill., under three tracks of the C. & E. I. Three through plate girder spans will be constructed, one for each track, with solid-type concrete abutments. The bridges will have concrete slab floors and ballast decks. A roadway 44 ft. wide with a 14-ft. vertical clearance and two 5-ft. sidewalks will be provided for 159th street, and a pump house and sump with two automatically operated 12-in. pumps, pumping into a high-level sewer, will take care of the drainage.

**CHICAGO & NORTH WESTERN.**—A contract has been awarded H. A. Peters Company, Chicago, for the construction of a one-story machine shop addition 100 ft. by 150 ft. at Green Bay, Wis. The new structure will have a steel frame and brick walls, and a 15-ton traveling crane and two track drop table pits will be installed. The cost of the improvements will be approximately \$82,000.

**DELAWARE, LACKAWANNA & WESTERN.**—A contract has been awarded the Ross and White Company, Chicago, for the construction of a 100-ton fireproof locomotive coaling plant and a two-track N. & W. type electric cinder plant at Syracuse, N. Y.

**DELAWARE, LACKAWANNA & WESTERN.**—The Pennsylvania Public Utility Commission has approved plans calling for the alteration and reconstruction of a crossing below grade at a point in Pocono township, Monroe county, where state highway route No. 169 crosses below grade the four main tracks of the Scranton division of the Delaware, Lackawanna & Western. Total cost of the improvement is estimated at \$50,356.

**MISSOURI PACIFIC.**—A contract amounting to approximately \$257,670 has been awarded Haralson & Cunningham, Houston, Tex., for placing 822,000 cu. yd. of embankment for the high level crossing of the New Orleans, Texas & Mexico (part of the Gulf Coast Lines) over Morganza Floodway. The embankment extends approximately one mile from the west levee of the floodway to the proposed end of a bridge 3.5 miles long, which will be constructed later. The embankment will be rolled in layers, with moisture control to provide maximum compacture.

**NEW YORK, NEW HAVEN & HARTFORD.**—A contract has been awarded to the George F. Collins Company, Inc., of New York for reconstruction of the bridge over the Quinnipiac river, New Haven, at estimated cost of \$150,000.



## Equipment and Supplies

### Equipment Buying Is Impressive

Totals for March and first quarter reflect the large-scale purchasing taking place

Railway equipment purchases for domestic service reported in the *Railway Age* during the month of March totaled 119 locomotives, 7,685 freight cars and 120 passenger-train cars. Of the 119 locomotives ordered, 56 were steam, 62 Diesel-electric and 1 electric. The railroads purchased 103 locomotives of this total, comprising 56 steam, 46 Diesel-electric and one electric, and the United States War and Navy departments the remaining 16 Diesel-electric units. Comparison with the preceding month of February, 1941, and the corresponding month last year follows:

#### March Orders Compared

	March, 1941	February, 1941	March, 1940
Locomotives:			
Steam .....	56	44	..
Diesel-electric ..	62	78	41
Electric .....	1	5	..
Total locos. . .	119	127	41
Freight cars .....	7,685	5,645	1,851
Passenger cars....	120	45	..

As compared with preceding years, the 119 locomotives purchased last month greatly exceeds the number ordered in that month in any year since 1929. This comparison holds true when the number of steam and Diesel-electric units ordered are individually compared. March freight car orders were also the largest for that month since 1929, although the number of passenger-train cars ordered was exceeded by the large volume booked during the month of March in the years 1930 and 1934.

One of the outstanding orders for locomotive power in a long span of years was placed in March by the Southern Pacific with the purchase of 50 large steam units, comprising 40 of the road's cab-ahead engines and 10 streamlined units of the "Day-light" type, plus 25 Diesel-electric switching units of 1,000 hp. Noteworthy freight car purchases included 2,500 by the Southern Pacific, 1,400 by the Baltimore & Ohio and 1,000 by the Chesapeake & Ohio. Passenger-train car orders included 20 coaches by the Chesapeake & Ohio and 15 by the Norfolk & Western, plus 70 cars of various types by the Union Pacific and 11 by the Missouri Pacific.

The volume of domestic equipment orders placed during the first quarter of 1941, as reported in the *Railway Age*, assumes impressive proportions, totaling 324 locomotives, 27,448 freight cars and 295 passenger-train cars. As compared with preceding years in the 1929-1941 cycle, the current base period of *Railway Age* equipment comparisons, the 324 locomotives purchased so far this year represents the largest number placed in any corresponding quarter during the period; the 27,448

freight cars ordered is the largest volume purchased since 1929; and the 295 passenger-train cars ordered, a larger number than purchased during the whole of 1940, is exceeded since 1929 only by the 343 cars placed during the first three months of 1937. A comparison with the corresponding first quarter of last year follows:

#### First Quarter Orders Compared

	First 3 months		
	1941	1940	Increase
Locomotives:			
Steam .....	124	23	101
Diesel-elec., etc..	189	81	108
Electric .....	11	..	11
Total locos. . .	324	104	220
Freight cars .....	27,448	5,078	22,370
Passenger cars ...	295	24	271

*Railway Age* totals as used in these comparisons include railway equipment ordered by the railroads, industrial companies and the United States government. A division of the 324 locomotives ordered during the first three months of this year according to these classifications was as follows:

#### First Quarter Locomotive Orders

	Steam	D.E., etc.	Elec.	Total
R. R. Cos. ....	120	137	11	268
Ind. Cos. ....	4	4	..	8
U. S. Gov't. ....	..	48	..	48
Total .....	124	189	11	324

The 27,448 freight cars ordered during the first quarter, 11,402 from the railroads'

### Domestic Equipment Orders Reported In Issues Of The Railway Age In March 1941 (Excluding March 1)

#### LOCOMOTIVES

Date	Name of Company	No.	Type	Builder
Mar. 8	Cincinnati, New Orleans & Texas Pacific .....	2	Diesel-electric Frt.	Electro-Motive Corp.
Mar. 8	Chicago & North Western....	4	Diesel-electric Pass.	Electro-Motive Corp.
Mar. 15	Southern Pacific .....	1	Diesel-electric Pass.	American Locomotive Co.
		40	4-8-8-2	Baldwin Locomotive Works
		10	4-8-4	Lima Locomotive Works
		10	Diesel-electric Sw.	American Locomotive Co.
		10	Diesel-electric Sw.	Electro-Motive Corp.
		5	Diesel-electric Sw.	Baldwin Locomotive Works
Mar. 15	Boston & Maine .....	3	Diesel-electric Sw.	General Electric Co.
Mar. 15	St. Paul Union Depot .....	1	Diesel-electric Sw.	General Electric Co.
Mar. 15	Piedmont & Northern .....	1	Electric	General Electric Co.
Mar. 15	U. S. War Dept. ....	7	Diesel-electric	General Electric Co.
Mar. 15	U. S. Navy Dept. ....	6	Diesel-electric	General Electric Co.
Mar. 22	Missouri Pacific .....	2	Diesel-electric Pass.	Electro-Motive Corp.
Mar. 22	U. S. Navy Dept. ....	3	Diesel-electric	H. K. Porter Co.
Mar. 29	Norfolk & Western .....	6	2-8-8-2	Company Shops
Mar. 29	Terminal R. R. Association of St. Louis .....	3	Diesel-electric Sw.	American Locomotive Co.
		2	Diesel-electric Sw.	Baldwin Locomotive Works
		3	Diesel-electric Sw.	Electro-Motive Corp.

#### FREIGHT CARS

Mar. 8	Pere Marquette .....	100	Box	Pullman-Standard
		100	Box	American Car & Foundry
		100	Box	General American
		100	Box	Greenville Steel Car
		100	Auto	Ralston Steel Car
Mar. 8	Denver & Rio Grande Western	10	Caboose	Bethlehem Steel Co.
Mar. 8	American Refrigerator Transit	150	Refrigerator	Company Shops
Mar. 15	Tennessee Coal, Iron & R. R....	90	Ore	Pullman-Standard
		85	Hopper	Pullman-Standard
Mar. 15	Lehigh & New England .....	100	H-B Bulk Cement	American Car & Foundry
Mar. 15	Chicago, St. Paul, Minneapolis & Omaha .....	700	Box	American Car & Foundry
Mar. 22	Baltimore & Ohio .....	1,000	Hopper	General American
		250	Box	Pullman-Standard
		100	Cement	Greenville Steel Car
Mar. 22	Western Maryland .....	40	Cov. Hopper	American Car & Foundry
Mar. 22	Phelps Dodge Corp. ....	80	Air-dump	Differential Steel Car
Mar. 22	Southern Pacific .....	500	Box	Pressed Steel Car
		500	Box	General American
		500	Box	Bethlehem Steel Co.
		500	Box	Pullman-Standard
		500	Box	Mt. Vernon Car
Mar. 22	Wabash .....	150	Auto	Company Shops
		50	M. T. Gondola	Company Shops
Mar. 29	Pennsylvania .....	15	Caboose	Company Shops
Mar. 29	Delaware & Hudson .....	50	Container	Company Shops
Mar. 29	Reading .....	5	Well	Company Shops
Mar. 29	Chesapeake & Ohio .....	500	H. S., D. E. Gondola	Company Shops
		400	Hopper	American Car & Foundry
		300	Hopper	General American
		300	Hopper	Pullman-Standard
Mar. 29	Minneapolis & St. Louis .....	50	Box	Pullman-Standard
Mar. 29	Chicago, Indianapolis & Louisville .....	60	Flat	Pullman-Standard
		150	Box	Pullman-Standard
Mar. 29	Baltimore & Ohio .....	50	Cement	Greenville Steel Car

#### PASSENGER-TRAIN CARS

Mar. 8	Chesapeake & Ohio .....	20	Coach	American Car & Foundry
Mar. 8	Norfolk & Western .....	15	Coach	Pullman-Standard
Mar. 22	Union Pacific .....	30	Chair	Pullman-Standard
		30	Baggage	Pullman-Standard
		10	Baggage-Mail	Pullman-Standard
Mar. 22	Missouri Pacific .....	2	Diner-Lounge	Edward G. Budd Mfg. Co.
		4	Coach	Edward G. Budd Mfg. Co.
		2	Mail	Edward G. Budd Mfg. Co.
		2	Mail-Baggage	Edward G. Budd Mfg. Co.
		1	Reserve Mail-Storage	Edward G. Budd Mfg. Co.
	Pullman Company .....	4	Pullman	Pullman-Standard



own shops and 16,046 from car builders, were divided as follows:

13,248	box
5,745	gondola
5,665	hopper
1,185	refrigerator
802	flat
300	stock
365	caboose
138	misc.

The number of freight cars ordered in the 10 months ended March 31, during which period the current uptrend in freight car buying has been in effect, now totals 83,051 cars. The sharp upturn in freight car buying that has taken place during that period is readily evidenced in the following table of monthly orders:

#### Trend of Freight Car Orders

	1941	1940*	1939*
January	14,118	479	12
February	5,645	2,748	2,220
March	7,685	1,851	557
April		2,456	2,890
May		1,734	1,528
June		6,953	1,405
July		7,701	885
August		5,111	1,535
September		9,632	17,517
October		12,159	17,698
November		6,410	5,542
December		7,637	2,652

\* Monthly orders as reported for 1939 and 1940 based on annual statistical surveys of the *Railway Age*.

The impressive amount of railway equipment recently purchased evidences railroad executive opinion as to the volume of traffic anticipated. This opinion was clearly stated last month by A. D. McDonald, president of the Southern Pacific, in announcing equipment orders for that company totaling approximately \$23,000,000. "These important additions of new equipment are being made for the primary purpose of keeping pace with the current increase in transportation requirements due to the national defense program and of anticipating the increases yet to come as the defense program develops."

#### Rock Island Seeks to Purchase \$1,175,000 of Equipment

Trustees of the Chicago, Rock Island & Pacific expect to petition the District court on April 7 for authority to purchase \$1,175,000 of Diesel-electric passenger locomotives and streamlined stainless steel passenger cars. The equipment is as follows: Three 2,000-hp. Diesel-electric locomotive (\$525,000), five coaches (\$350,000), two dining cars (\$180,000), and two combination mail-express-baggage cars (\$120,000).

#### FREIGHT CARS

THE UNION PACIFIC is inquiring for 100 steel-sheathed wood-lined caboose cars.

THE CENTRAL OF GEORGIA is reported to be contemplating the acquisition of about 200 box cars of 50 tons' capacity.

THE NEW YORK CENTRAL is expected to place an order for 1,000 box cars with Despatch Shops, Inc.

THE CHICAGO, ROCK ISLAND & PACIFIC has ordered 25 covered hopper cars of 70 tons' capacity from the General American

Transportation Corporation on a lease-purchase arrangement. The intended purchase of this equipment was reported in the *Railway Age* of March 1. This company is reported to be contemplating further large freight car acquisitions.

THE BETHLEHEM STEEL COMPANY has placed an order for 12 flat cars of 100 tons' capacity with the company's own shops.

THE NEW YORK, CHICAGO & ST. LOUIS has ordered 500 box cars of 50 tons' capacity from the American Car & Foundry Co.

THE MONTOUR has ordered 300 hopper cars of 50 tons' capacity from the Pullman-Standard Car Manufacturing Company.

THE ALIQUIPPA & SOUTHERN has placed an order for 50 low-side, mill-type gondola cars of 100 tons' capacity with the company's own shops.

THE LAKE SUPERIOR & ISHPEMING has ordered 100 ore cars of 50 tons' capacity from the Bethlehem Steel Company. These are in addition to the 100 ore cars ordered in February as reported in the *Railway Age* of February 22.

The KANSAS CITY SOUTHERN is reported to be in the market for from 200 to 225 freight cars comprising 100 box cars of 50 tons' capacity, 50 automobile cars of 50 tons' capacity and 50 to 75 gondola cars of 70 tons' capacity.

#### IRON AND STEEL

THE UNITED STATES WAR DEPARTMENT is contemplating the purchase of approximately 10,536 gross tons of second-hand 85 lb. ASCE rail, fastenings and tie plates for use in rehabilitating railway facilities to be used in training a regular army railway operating battalion. Initial requirements call for 3,500 gross tons to be delivered about June 1. Inquiries may be addressed to the Office of the Chief of Engineers, Washington, D. C.

#### SIGNALING

THE GREAT NORTHERN has placed an order with the General Railway Signal Company covering materials for an absolute permissive block signaling installation between Nickerson, Minn., and Boylston, Wis., a distance of approximately 24 mi. The order includes 33 Type-D color-light signals, 9 Model-7 switch controllers, 161 relays of various types, and 19 rectifiers.

THE BUTTE, ANACONDA & PACIFIC has placed an order with the Union Switch & Signal Co. covering the necessary materials for the installation of automatic block signaling on its single track electric Missoula Gulch line between Rocker, Mont., and Butte Hill Yard, involving color light signals controlled by alternating current double rail return track circuits. All apparatus in the instrument housings will be factory wired before shipment, with the field installation work to be carried out by the railway's regular construction forces.

## Supply Trade

George H. Snyder, sales agent in charge of the St. Paul, Minn., office of the American Steel Foundries, Chicago, has been promoted to general sales manager, railway division, with headquarters at Chi-



George H. Snyder

cago. Mr. Snyder entered railway service in 1905 in the stores department of the Minneapolis, St. Paul & Sault Ste. Marie and in 1911 transferred to office of the general mechanical superintendent. He resigned from this company in 1920 to enter the sales department of the American Steel Foundries at St. Paul, and since 1935 has been sales agent in charge of that office.

Alex S. Anderson, whose appointment as district manager for the midwestern territory of the Duff-Norton Manufacturing Company, with headquarters at Chicago, was reported in December, was educated in the public schools at Detroit, Mich. He went to work in the shops of the Detroit Shipbuilding Company and later was transferred to the office. In 1908 Mr. Anderson went with Adams & Westlake as a



Alex S. Anderson

representative contacting the shipbuilding and railroad trades at Philadelphia, Pa. Three years later he was transferred to the



western territory, with headquarters at Chicago, and in 1927 he was elected vice-president, which position he held until his appointment as district manager for the Duff-Norton Manufacturing Company in December.

**James M. Brophy** has been appointed sales representative of the **Chicago Railway Equipment Company**, Chicago.

**The Buda Company**, Harvey, Ill., has opened an office and display floor in Washington, D. C., under the direction of **Col. H. H. Frost**, vice-president.

**Harry E. Orr**, for the past seven years chief metallurgist of the **Burnside Steel Foundry Company** of Chicago, has been appointed to the sales staff of the **Vanadium Corporation of America** in the capacity of sales engineer with headquarters at the company's Chicago office.

**S. H. Hammond**, until recently manager of the appliance division of the **Whiting Corporation**, Harvey, Ill., has been placed in charge of all Whiting branch offices and sales representatives, with the title of director of the field force. **M. F. Becker**, vice-president, has been appointed co-manager of the equipment division.

#### New Paint-Shop at St. Louis Plant of A. C. F.

At the St. Louis plant of the **American Car & Foundry Co.** a new car paint-shop has recently been placed in service. It contains eight railroad tracks, and accommodates 115 freight cars at one time. Designed for year-round operation, 30 overhead unit heaters will maintain a comfortable 65 deg. F. even in zero weather. The



New Car Paint-Shop Placed in Service in American Car & Foundry's St. Louis Plant.

building is 660 ft. long, 130 ft. wide, and contains 86,000 sq. ft. of concrete flooring. Daylight illumination is supplied by 22,000 lights of glass in the walls and in the Aiken type monitor roof, and the electrical illumination is from incandescent lamps in enclosed angle-type reflectors. The two 64-ft. trusses which support the roof give a working clearance of 20 ft. and the entire floor area is free except for a single central row of steel columns.

## Financial

**ATCHISON, TOPEKA & SANTA FE.—New director.**—Richard W. Robbins, chairman of the Kansas Industrial Development Commission, was elected a director of this road on March 25, to succeed the late W. B. Storey, former president.

**BANGOR & AROOSTOOK.—Annual Report.**—The 1940 annual report of this road shows net income, after interest and other charges, of \$125,533, as compared with a net income of \$215,621 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	\$4,871,452	-\$247,987
Maintenance of way and structures	1,015,578	+8,389
Maintenance of equipment	954,474	-44,147
Transportation	1,382,307	-41,764
TOTAL OPERATING EXPENSES	3,686,535	-116,938
Operating ratio	75.68	+1.39
NET REVENUE FROM OPERATIONS	1,184,917	-131,049
Railway tax accruals	459,047	-23,884
Railway operating income	725,870	-107,164
Net rents—Cr.	117,565	+4,861
NET RAILWAY OPERATING INCOME	843,435	-102,304
Total other income	45,330	-10,770
TOTAL INCOME	888,765	-113,074
Interest on funded debt	739,608	-10,179
TOTAL FIXED CHARGES	757,051	-9,763
NET INCOME	\$125,533	-\$90,088

**ATLANTIC COAST LINE.—Abandonment.**—This company would be authorized to

591,166, an increase of \$6,248,455 compared with net income in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	\$130,720,172	+\$13,998,117
Maintenance of way	12,303,197	+1,280,978
Maintenance of equipment*	24,709,550	+1,322,175
Transportation	30,900,070	+2,474,482
TOTAL OPERATING EXPENSES	74,088,008	+5,228,387
Operating ratio	55.82	-2.18
NET REVENUE FROM OPERATIONS	58,632,162	+8,769,730
Railway tax accruals	18,241,187	+4,944,992
Railway operating income	40,390,974	+3,824,737
Equipment rents—Net	1,452,273	+428,296
Joint facility rents—Net	1,025,503	+210,574
NET RAILWAY OPERATING INCOME	40,817,745	+4,463,607
TOTAL INCOME	42,063,200	+5,058,143
Rent for leased roads and equipment	49,649	+203
Interest on debt	8,284,234	-1,185,755
NET INCOME	\$33,591,166	+\$6,248,454
Disposition of net income:		
Income applied to sinking and other reserve funds	1,138,956	+7,813
Income balance transferred to profit and loss	\$32,452,210	+\$6,240,641

**BELLEFONTE CENTRAL.—Abandonment.**—This road has applied to the Interstate Commerce Commission for authority to abandon a 33.8-mile branch line extending from State College, Pa., to Stover.

**CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC-PENNSYLVANIA.—Joint Operation and Construction.**—The Chicago, Milwaukee, St. Paul & Pacific would be authorized to operate, under trackage rights, over 11 miles of the Green County Coal Branch of the Pennsylvania and to construct a connecting track, and the Pennsylvania would be authorized to operate, under trackage rights, over the Sponsler branch of the Milwaukee, 4.4 miles and to construct a connecting track, all in Greene and Sullivan Counties, Ind., if Division 4 of the Interstate Commerce Commission adopts a proposed report of its Examiner A. G. Nye.

**CINCINNATI UNION TERMINAL.—Bonds.**—This company has been authorized by Division 4 of the Interstate Commerce Commission to issue \$3,000,000 of first mortgage 2.6 per cent bonds, series F, maturing March 1, 1971, the proceeds to be used to redeem on July 1, 1941, all of its outstanding 30,000 shares of five per cent preferred stock of a par value of \$100 a share. At the time of filing the petition the company pointed out that by redeeming the stock at \$105 per share it would save \$106,780 over the life of the bonds on income tax, capital stock tax, and dividend payments.

The bonds have been sold for \$3,000,149 plus accrued interest to the date of payment of the bonds to the Union Central Life Insurance Company of Cincinnati, Ohio, making the average annual cost to the company approximately 2.6 per cent.

At the same time Division 4 authorized

**CHESAPEAKE & OHIO.—Annual Report.**—The preliminary annual report of this road for the year 1940 shows net income, after interest and other charges, of \$33,-

abandon a branch line extending northwesterly from Conway, S. C., to Aynor, 14.8 miles, if Division 4 of the Interstate Commerce Commission adopts a recommended order of its Examiner J. S. Pritchard.



the proprietary companies of the terminal, each of which own one-seventh of its stock, to guarantee the payment of the principal and interest of the bonds. They are the Baltimore & Ohio, Chesapeake & Ohio, Southern, New York Central (Cleveland, Cincinnati, Chicago & St. Louis), Louisville & Nashville, Norfolk & Western, and Pennsylvania.

**EAST BROADTOP RAILROAD & COAL.—Revision of Interest Rates.**—This company has asked the Interstate Commerce Commission for authority to revise its interest rates on its funded debt by increasing from four to six per cent the rates on \$500,000 of first mortgage four per cent bonds due in 1958 and on \$92,500 of first mortgage four per cent bonds, due in 1958, of the Shade Gap, provided that the interest in excess of three per cent and not exceeding six per cent per year shall be payable and cumulative only to the extent earned in any calendar year. The company also proposes to increase from four to six per cent the interest rate on \$464,400 of second mortgage four per cent income bonds due in 1958.

The reason given for this increase in interest rates is that the company feels it will save money in state and federal taxes by paying out more money in interest. On the basis of 1940 federal and state taxes, the company estimates that it will save some \$6,870.

**MANCHESTER & ONEIDA.—Bonds.**—Division 4 of the Interstate Commerce Commission has granted this company authority to issue \$32,500 of first mortgage five per cent bonds, to be delivered at par in exchange for a like principal amount of its outstanding first mortgage six per cent bonds, due March 1, 1941, or to be sold at par and accrued interest, and the proceeds used to retire such bonds. The new bonds will mature March 1, 1956.

**MONONGAHELA.—Redemption of bonds.**—This road has given notice to holders of \$11,418,000 of outstanding first mortgage 4s, due May 1, 1960, that it will redeem and pay on May 1, 1941, all outstanding bonds at their principal amount and accrued interest plus a premium of 5 per cent of principal amount. Redemption of the first mortgage bonds is being made from proceeds of the new issue of \$11,418,000 first mortgage 3½s, Series B, together with funds provided by the road. See *Railway Age* for February 8, page 299.

**MAINE CENTRAL.—Annual Report.**—The 1940 annual report for this company shows net income, after interest and other charges, of \$439,167, a decrease of \$134,276 as compared with the net income in 1939. Selected items from the income report follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	\$12,157,074	+\$166,634
Maintenance of way	1,793,410	+187,914
Maintenance of equipment	2,165,794	+199,687
Transportation	4,341,903	-33,324
TOTAL OPERATING EXPENSES	8,845,060	+340,076
Operating ratio	72.76	+1.83

NET REVENUE FROM OPERATIONS	3,312,014	-173,442
Railway tax accruals	1,006,623	+209,035
Railway operating income	2,305,391	-382,477
Hire of freight cars—Dr.	100,653	-30,614
Joint facility rents		
—Net	229,324	-69,495
NET RAILWAY OPERATING INCOME	1,966,206	-215,118
Total other income	460,532	-14,502
TOTAL INCOME	2,426,738	-229,619
Rent for leased roads	613,325	-43,970
Interest on funded debt	1,221,474	-71,097
TOTAL DEDUCTIONS FROM INCOME	1,987,571	-95,343
NET INCOME	439,167	-134,276
Disposition of net income:		
Income applied to sinking and other reserve funds	2,299	+248
Dividend appropriations	77,180	+77,180
Balance transferred to profit and loss	\$359,688	-\$211,704

**MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—Reorganization.**—Division 4 of the Interstate Commerce Commission has set May 20 in Washington, D. C., as the date for public hearings on a plan of reorganization for this company under section 77 of the Bankruptcy Act which was filed last week with the commission by the trustees of the road. Examiner Ralph H. Jewell will conduct the hearings.

**NEW YORK, NEW HAVEN & HARTFORD.—Annual Report.**—The 1940 annual report for this company shows net deficit, after interest and other charges, of \$2,003,175, as compared with a net deficit of \$2,914,114 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	\$85,604,108	+\$2,185,633
Maintenance of way and structures	10,597,580	-424,355
Maintenance of equipment	13,517,769	-219,626
Transportation	32,187,263	+1,176,487
TOTAL OPERATING EXPENSES	62,199,236	+740,076
Operating ratio	72.66	-1.02
NET REVENUE FROM OPERATIONS	23,404,873	+1,445,557
Railway tax accruals	6,607,654	+415,267
Railway operating income	16,797,219	+1,030,289
Net Rents—Dr.	7,522,865	+218,858
NET RAILWAY OPERATING INCOME	9,274,354	+811,432
Total other income	2,670,003	-55,523
TOTAL INCOME	11,944,357	+755,909
Rent for leased roads	721,146	-603
Interest on funded debt	11,268,218	+123,034
TOTAL FIXED CHARGES	13,321,086	-134,917
NET DEFICIT	\$2,003,175	-\$910,940

**PENNSYLVANIA.—Secondary Stock Sale.**—Distribution of 259,983 shares of capital stock of this road held by the British government for liquidation in the United States market was completed by a group headed by Kuhn, Loeb & Co. on March 27. The block, which represents a market value of more than \$6,000,000, was one of the largest single investments of American securi-

ties held by the British treasury, and the second largest single block of British-owned stock thus distributed.

**READING.—Bonds of the Philadelphia & Reading Terminal.**—The Philadelphia & Reading Terminal has been authorized by Division 4 of the Interstate Commerce Commission to issue \$8,000,000 of first mortgage bonds, \$3,500,000 to be serial bonds and \$4,500,000 to be sinking fund bonds. The serial bonds will be dated March 1, 1941, and will mature from March 1, 1942 to 1951, with coupons of 0.50 to 2.62 per cent; while the sinking fund bonds will bear interest at the rate of 3½ per cent, will be dated March 1, 1941 and will be due March 1, 1966. The principal and interest on the bonds are unconditionally guaranteed by the Reading.

Proceeds from the sale of the bonds will be applied to the retirement of \$8,500,000 of Philadelphia & Reading terminal loan five per cent bonds, due May 1, 1941. The bonds have been sold to Drexel & Co., acting on behalf of itself and certain other underwriters, the serial bonds at 99½ and the sinking fund bonds at 97¼ per cent of par, with accrued interest in both cases. On these bases the average annual cost to the terminal company of the proceeds of the serial bonds will be approximately 2.3 per cent, and of the sinking fund bonds approximately 3.76 per cent, the average cost of both issues being approximately 3.47 per cent.

**ST. LOUIS-SAN FRANCISCO.—Abandonment and Operation.**—Because of the construction by the federal government of the Denison Dam in Oklahoma and the inundation of this company's tracks, the latter has been authorized by Division 4 of the Interstate Commerce Commission to acquire the following lines to be constructed by the United States Government:

1. From Ravia, Okla., to Randolph, 3.1 miles;
  2. From Liggett, Okla., to Platter, 11.6 miles; and
  3. From Mead, Okla., to Lakeside, 4.1 miles, a total of 18.8 miles.
- At the same time the company has been authorized to abandon the following lines:
1. From Madill, Okla., to Mead, 16.6 miles;
  2. From Liggett, Okla., to Platter, 10.8 miles; and
  3. From Ravia, Okla., to Randolph, 2.6 miles, a total of 30 miles.

**SEABOARD AIR LINE.—Operation.**—This company has been authorized by Division 4 of the Interstate Commerce Commission to operate, under trackage rights, over a line of the Virginian in and near Suffolk, Va., 2.3 miles.

**SOUTHERN PACIFIC.—Extension of R. F. C. Loans.**—This company has asked the Interstate Commerce Commission for approval of a plan whereby it would consolidate its outstanding Reconstruction Finance Corporation loans into one loan of \$13,000,000 and extend it at four per cent for a period ending May 1, 1945. The company now has outstanding two loans totaling \$18,000,000, one in the amount of \$10,000,000, maturing May 1, 1941, and an-



other in the sum of \$8,000,000, maturing April 28, 1942. It proposes to pay off \$5,000,000 on the two loans and then consolidate the remaining \$13,000,000 into one loan.

**TEXAS & PACIFIC.—Annual Report.**—The 1940 annual report of this road shows net income, after interest and other charges, of \$1,563,328, as compared with a net income of \$960,560 in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	\$26,496,557	+\$42,462
Maintenance of way and structures	3,076,790	-16,055
Maintenance of equipment	5,050,241	-181,588
Transportation—Rail Line	8,400,395	+4,204
TOTAL OPERATING EXPENSES	18,779,929	-192,509
NET REVENUE FROM OPERATIONS	7,716,629	+234,971
Railway tax accruals	1,868,475	-98,331
Railway operating income	5,848,154	+333,301
Net rents—Dr.	972,462	-177,169
NET RAILWAY OPERATING INCOME	4,875,692	+510,471
Total other income	619,116	+31,168
TOTAL INCOME	5,494,808	+541,638
Interest on funded debt	3,857,257	-27,921
TOTAL FIXED CHARGES	3,866,854	-28,198
INCOME AFTER FIXED CHARGES	1,575,028	+602,728
CONTINGENT CHARGES: Interest on funded debt	11,700	.....
NET INCOME	\$1,563,328	+\$602,728

**UNION PACIFIC.—Abandonment by the Oregon-Washington Railroad & Navigation.**—The Oregon-Washington Railroad & Navigation and the Union Pacific, respectively, have been authorized by Division 4 of the Interstate Commerce Commission to abandon a line and the operation of a line extending from North River Junction, Wash., to the end of the track at Vesta, 15.3 miles.

**UVALDE & NORTHERN.—Abandonment.**—This company would be authorized to abandon, as to interstate and foreign commerce, its entire line of railroad extending in a northwesterly direction from Uvalde, Tex., to Camp Wood, 37.1 miles, if Division 4 of the Interstate Commerce Commission adopts a proposed report of its Examiner Jerome K. Lyle.

#### Average Prices of Stocks and Bonds

	Apr. 1	Last week	Last year
Average price of 20 representative railway stocks..	29.98	29.62	31.55
Average price of 20 representative railway bonds..	65.61	65.41	59.91

#### Dividends Declared

Atlantic Coast Line.—5 Per Cent Non-cumulative Preferred (Special), \$2.50, payable May 10 to holders of record April 23.  
Carolina, Clinchfield & Ohio.—\$1.50, quarterly, payable April 21 to holders of record April 10.  
Norfolk & Western.—Adjustment Preferred, \$1.00, quarterly, payable May 19 to holders of record April 30.  
Reading Company.—25¢, quarterly, payable May 8 to holders of record April 10.

## Railway Officers

### EXECUTIVE

**Bernard J. Fallon**, executive officer of the Chicago, Aurora & Elgin and the Chicago, North Shore & Milwaukee, with headquarters at Chicago, has been appointed also co-receiver on both lines.

### FINANCIAL, LEGAL AND ACCOUNTING

**W. L. Palmes**, auditor of capital expenditures of the Gulf, Mobile & Ohio, has been promoted to assistant to the comptroller, a newly created position, with headquarters as before at Mobile, Ala., and **T. C. Schley** has been appointed auditor of capital expenditures succeeding Mr. Palmes.

### OPERATING

**A. E. Pistole**, special representative on the Texas & Pacific, with headquarters at Dallas, Tex., and formerly superintendent at Big Springs, Tex., has retired.

**J. F. Stewart** has been appointed manager of dining car service of the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston, Tex., succeeding **D. H. Lusk**, who retired on April 1.

**M. J. Barry**, assistant superintendent on the Manitoba district of the Canadian Pacific, has been promoted to superintendent of the Winnipeg Terminals division, with headquarters as before at Winnipeg, Man., succeeding **R. A. Gamble**, who retired on March 31.

**E. S. Wyatt**, superintendent of the Northern Pacific Transport Company at Billings, Mont., has been promoted to assistant to the general manager of the Lines East of Livingston (Mont.), with headquarters at St. Paul, Minn. **Charles W. Fee**, assistant superintendent of the Yellowstone division, with headquarters at Billings, has been appointed superintendent of the Transport company in addition to his railway duties. **F. R. Meehan**, material and service supervisor of the Transport company, has been promoted to assistant superintendent, with headquarters as before at Billings.

**H. B. Smith**, trainmaster of the Pocahontas division of the Norfolk & Western, with headquarters at Bluefield, W. Va., has been promoted to the newly-created position of assistant superintendent of the Radford division. **C. P. Blair**, assistant trainmaster of the Shenandoah division at Roanoke, Va., has been promoted to trainmaster of the Pocahontas division, to succeed Mr. Smith. **J. J. Thompson**, assistant trainmaster of the Pocahontas division at Williamson, W. Va., has been transferred to the Shenandoah division. **W. R. Jackson**, assistant road foreman of engines on the Scioto division at Portsmouth, Ohio, has been promoted to assistant trainmaster

of the Pocahontas division, succeeding Mr. Thompson.

### TRAFFIC

**Don R. Changnon**, commercial agent for the Illinois Central at St. Louis, Mo., has been promoted to general agent at Kansas City, Mo., succeeding **F. H. Erhart**, who has been called into military service.

**L. C. Cardinal**, division freight traffic manager on the Gulf, Mobile & Ohio, at Montgomery, Ala., has been appointed executive general agent at that point, a newly created position, and **J. B. Carpenter**, assistant general passenger agent, with headquarters at Jackson, Tenn., has been appointed assistant, office of the president at Mobile, Ala., also a newly created position.

**George A. Lamb**, whose promotion to freight traffic manager on the Erie, with headquarters at Cleveland, Ohio, was announced in the *Railway Age* of March 8, was born in Chicago on January 6, 1894, and entered railway service on the Erie on December 16, 1908. On August 9, 1915, he was promoted to traveling dairy agent at Chicago, and on March 1, 1920, he was appointed traveling freight agent at Cleveland. Mr. Lamb was advanced to division freight agent at Buffalo, N. Y., on February 15, 1927, and on September 1, 1931, was transferred to Scranton, Pa. On April 1, 1936, he was promoted to assistant to the vice-president, traffic, at Cleveland and on January 1, 1941, he was appointed assistant general freight agent at Pittsburgh, Pa., the position he held until his recent promotion.

**Edward H. Richards**, assistant general freight agent on the Chicago & North Western at Minneapolis, Minn., has been promoted to assistant traffic manager, assigned to duties in off-line territory, a newly created position, with headquarters



Edward H. Richards

at Chicago. Mr. Richards was born at Baraboo, Wis., on December 8, 1897, and entered railway service in 1915 as an engine wiper on the Chicago, St. Paul, Minneapolis & Omaha (a subsidiary of the North Western) at Itasca, Wis. In 1916 he became cashier and revisor in the freight office at Superior, Wis., and a



short time later entered the U. S. Marine Corps. In 1918 he returned to railroad service as chief clerk in the traffic department of the North Western at Duluth,

Minn., and three years later he was appointed assistant chief clerk in general freight department of the Omaha at St. Paul, Minn., later being promoted to chief

clerk. Mr. Richards was promoted to general agent for the North Western at St. Paul in 1935, and in 1938 was transferred to Seattle, Wash. Later the same year

## NORFOLK AND WESTERN RAILWAY COMPANY

### Summary of Forty-fifth Annual Report for 1940

The Forty-fifth Annual Report of the Norfolk and Western Railway Company covering operations for 1940 shows Gross Railway Operating Revenues increased \$12,113,493, or 13.01 per cent., over 1939 as a result of increased demand for bituminous coal by the country's heavy industries and increased volume of business generally. Operating Expenses increased \$6,461,936, or 12.64 per cent., because of increased traffic volume and maintenance of roadway and equipment. Net Income increased \$1,382,738, or 4.61 per cent. Income Balance of \$30,470,596 was equal to \$21.66 per share of outstanding Common Stock, as compared with \$20.68 in 1939.

#### Income Statement

	1940	1939
Railway Operating Revenues.....	\$105,228,620.86	\$93,115,127.59
Railway Operating Expenses.....	57,580,323.50	51,118,387.68
Net Revenue from Operations.....	\$47,648,297.36	\$41,996,739.91
Federal, State and Local Taxes.....	\$18,167,944.48	\$13,459,336.15
Net Rental of Equipment and Joint Facilities—Credit .....	3,773,879.20	3,121,812.73
Net Railway Operating Income.....	\$33,254,232.08	\$31,659,216.49
Other Income—Net .....	888,031.16	1,136,348.96
Gross Income from all sources.....	\$34,142,263.24	\$32,795,565.45
Interest paid on Bonds and Miscellaneous Deductions .....	\$2,758,287.20	\$2,794,327.67
Net Income .....	\$31,383,976.04	\$30,001,237.78
Dividends on Adjustment Preferred Stock—\$4.00 per share .....	\$913,380.00	\$913,720.00
Income Balance .....	\$30,470,596.04	\$29,087,517.78

Note: Net Railway Operating Income was equivalent to 6.29 per cent. earned upon the Company's Total Railway Property Investment, compared with 6.17 per cent. in 1939.

#### Profit and Loss Statement

Credit Balance, January 1 .....	\$159,616,921.94
Add:	
Income Balance for Year.....	30,470,596.04
Miscellaneous Items .....	539,592.77
	\$190,627,110.75
Deduct:	
Appropriation of Surplus for Dividends on Common Stock .....	\$21,097,245.00
Miscellaneous Items .....	1,130,262.71
	22,227,507.71
Credit Balance, December 31.....	\$168,399,603.04

#### Dividends

Dividends of \$4.00 per share, or \$913,380., were paid upon the Adjustment Preferred Stock, and of \$15.00 per share, or \$21,097,245., upon the Common Stock, the same as in 1939. The total of Common Stock dividends paid during 1940 represented 3.99 per cent. of the Company's Total Railway Property Investment, and 69.24 per cent. of the Income Balance.

#### Financial

The capital stock held by the public was \$163,482,800., and represented 75.96 per cent. of outstanding capitalization. On December 31, 1940, the Company's stockholders numbered 13,626, an increase of 81, with an average holding of 120 shares.

The funded debt held by the public was \$51,737,532., a decrease of \$57,400., and represented 24.04 per cent. of capitalization so held. Securities in the voluntary sinking fund for retirement of funded debt had a par value of \$662,800., and a market value of \$810,057.

#### Railway Property Investment

The Total Railway Property Investment was \$529,027,163, an increase over 1939 of \$15,831,511, of which \$4,406,357 covered net increase in investment in various additions and improvements to roadway, structures and shop machinery and \$10,788,712 covered net increase in investment in new rolling equipment.

#### Additions and Betterments

The more important additions and betterments consisted of construction of a coal classification and storage yard, and car-repair yard at Lambert Point, Va.; construction of freight car paint yard at Roanoke, Va.; installation of warehouse and track facilities for assembling and handling vegetable shipments at Portlock Yard, Norfolk, Va.; laying 134.73 miles of track with 131-lb. rail, making a total of 2,669.96 miles of track laid with 130-lb. or heavier rail; replacement of existing bridges with new or rebuilt structures, installation of position light automatic signals; and elimination of grade crossings.

At Roanoke, Va., expansion of the West End Yards was in progress, including additional storage space and classification tracks, new hump yard and engine terminal facilities; and at Sewells Point, Va., a concrete and steel warehouse was under construction.

#### New Equipment

During the year the Company built, in its shops at Roanoke, Va., 11 steam freight locomotives, 20 all-steel cabin cars, and 1 work equipment car, and purchased and placed in service 4,284 freight train cars, 1 work equipment car, 7 automobiles and trucks and 1 motorcycle and side car.

#### Taxes

Taxes were \$18,167,944, an increase over 1939 of \$4,708,608, or 34.98 per cent., principally because of increase in Federal Income Tax rate from 19 per cent. to 24 per cent. Taxes amounted to 17 cents out of each dollar of Operating Revenues, to 57.89 per cent. of Net Income, to \$918 for each employee, and to \$12.92 for each share of Common stock.

#### New Industries

Seventy new industries were located on the Company's lines during 1940, with a total capitalization of \$75,060,200, and employment of 13,419 persons. One hundred and six established plants were expanded at a cost of \$44,874,495 and an increase in personnel of 11,963 persons. In addition, a smokeless powder plant, with a capacity of 300,000 pounds of powder daily for the United States Government, was under construction at Pepper, Va., by Hercules Powder Company. The Government also is planning erection of a bag loading plant near Dublin, Va. The total investment in these two plants will approximate \$50,000,000. E. I. duPont de Nemours and Company began construction of a nylon plant near Martinsville, Va., to cost \$11,000,000, and to be in operation late in 1941.

#### Railroads and National Defense

The member roads of the Association of American Railroads adopted a resolution renewing the pledge of the railroads "that individually and in cooperation with one another and with the Government of the United States, they will continue to meet to the full the demands of commerce and the needs of national defense."

This Company has anticipated future requirements by authorizing substantial additions to rolling stock and increased rail purchases, and by continuing heavy repairs to equipment.

A training camp has been established on the site of Camp Lee, located on this Company's line near Petersburg, Va. The camp is planned to accommodate 20,000 men.

The high level of operating efficiency attained in previous years has been maintained and, in some instances, improved because of continued modernization of equipment and facilities, with resultant improved service to shippers and the traveling public.

W. J. JENKS,  
President.

[Advertisement]

Continued on next left-hand page



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nights", The Southern Pacific's famous "Hotshot".

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LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO



he was advanced to assistant general freight agent at Minneapolis, the position he held until his recent promotion. Mr. Richards is director of the Traffic Club of Minneapolis.

**James J. Grogan**, freight traffic manager of the Atchison, Topeka & Santa Fe, has been appointed general freight traffic manager, a new title, with headquarters as before at Chicago. **Robert M. Hitshe**, assistant freight traffic manager in charge of solicitation and **Tracy L. Bothwell**, assistant freight traffic manager in charge of rates and divisions, have been appointed freight traffic managers, with headquarters as before at Chicago. **Martin C. Burton**, assistant freight traffic manager at Topeka, Kan., **Albert M. Reinhardt**, assistant freight traffic manager at San Francisco, Cal., and **Guy L. Goin**, assistant freight traffic manager at Los Angeles, Cal., have been appointed freight traffic managers, with the same headquarters, and **Elmer B. Johnson**, general freight agent of the Gulf, Colorado & Santa Fe, has been appointed freight traffic manager, with headquarters as before at Galveston.

### ENGINEERING AND SIGNALING

**M. Roger Snyder**, chief signal inspector on the Seaboard Air Line, has been appointed assistant signal engineer, with headquarters at Norfolk, Va. **J. R. De Priest**, engineer-draftsman, has been appointed assistant superintendent telegraph with headquarters at Norfolk, reporting to the superintendent of telegraph and signals. Mr. De Priest fills the vacancy created by the death of **B. G. Roberts**, assistant superintendent telegraph, who died on December 12, 1940.

Mr. Snyder was born at Manistique, Mich., in 1892, and following a high school education, entered the service of the Boston & Albany in 1912, as a clerk in the transportation department. Subsequently he held positions as a telegraph operator for various railroads. Mr. Snyder entered the service of the Union Switch & Signal Company in 1918 as a signal helper, and was later promoted to the position of construction foreman in 1925. During those seven years, his work brought him in contact with the Delaware, Lackawanna & Western and the Central Railroad of New Jersey, part of the time being spent as a maintainer of an electro-pneumatic interlocking. Mr. Snyder entered the service of the Seaboard Air Line in 1926 as an office engineer and chief draftsman, and was promoted to chief signal inspector in the summer of 1929, which position he held at the time of his latest promotion to assistant signal engineer.

**Winslow A. Kingman**, whose promotion to district engineer of the Western district of the Eastern lines of the Atchison, Topeka & Santa Fe, with headquarters at Topeka, Kan., was announced in the *Railway Age* of March 22, was born at Topeka, on April 20, 1889, and graduated from Kansas University in 1915. He entered railway service on June 15, 1911, as a draftsman in the chief engineer's office at Topeka. After graduation from Kansas University, he was appointed a masonry inspector and later an instrumentman at

Topeka. During the first World War he served in the U. S. Army, returning to the Santa Fe in 1919 as a draftsman and assistant engineer in the chief engineer's



Winslow A. Kingman

office at Topeka. In May, 1924, Mr. Kingman was appointed office engineer at Newton, Kan., in February, 1928, he was appointed office engineer for the chief engineer at Topeka, and in May, 1934, he returned to Newton, serving there until April, 1939, when he was again appointed office engineer in the chief engineer's office at Topeka, which position he held until his recent promotion, effective March 15.

### PURCHASES AND STORES

**C. S. Wetherholt**, storekeeper on the Chesapeake & Ohio at Peach Creek, W. Va., has been promoted to division storekeeper, with headquarters at Stevens, Ky., succeeding **W. H. Stowasser**, who has been transferred to Peru, Ind.

### SPECIAL

**H. D. Ingalls**, maintenance superintendent for the American Airlines, has been appointed maintenance engineer for Seaboard Airways, Inc., subsidiary of the Seaboard Air Line.

**J. P. Reinhold**, eastern sales representative of the Central Manufacturing District of Los Angeles (Cal.), has been appointed special representative of the president of the Atchison, Topeka & Santa Fe, with headquarters at Chicago, succeeding **LeRoy D. Owen**, who has been assigned to other duties. Mr. Reinhold will be primarily concerned with the location of new plants, army camps and other matters in connection with the National Defense Program.

### OBITUARY

**David C. Parks**, division storekeeper on the Chicago, Rock Island & Pacific at Chicago, died at his home in that city on April 1.

**Joseph Mayo Metcalf**, assistant chief engineer of the Missouri-Kansas-Texas Lines, with headquarters at St. Louis, Mo., died on March 23 at the St. John's hospital in that city. Mr. Metcalf was born in Elyria, Ohio, on October 30, 1880 and

graduated from Oberlin College in 1901 and Harvard College in 1902. He entered railway service in 1902 as a chainman on the Atchison, Topeka & Santa Fe, later being promoted successively to rodman, inspector, computer, transitman and assistant engineer. In 1907 he went with the Chicago, Milwaukee, St. Paul & Pacific and served during that year and the following year as an instrumentman and resident engineer in Montana and Idaho. Mr. Metcalf went with the M-K-T in 1909 as an assistant engineer and was later advanced successively to division engineer and principal assistant engineer. In 1928 he was promoted to assistant chief engineer, the position he held until his death.

**Harry Bell Reinsagen**, who retired on October 1, 1939, as assistant chief engineer of the Ohio Central lines of the New York Central, with headquarters at Cleveland, Ohio, died in that city on March 1. Mr. Reinsagen was born at Cincinnati, Ohio on September 17, 1872, and entered railway service on January 1, 1897, as an assistant engineer on the Lake Erie & Western (now part of the Nickel Plate). On January 1, 1906, he went with the Lake Shore & Michigan Southern (now part of the New York Central) as an assistant engineer and on January 1, 1910, he was promoted to first assistant engineer, with headquarters at Cleveland. Mr. Reinsagen was advanced to principal assistant engineer on September 1, 1912, and retained that position when the L. S. & M. S. was merged with the New York Central. On March 1, 1917, he was appointed engineer of maintenance of way, Lines West of Buffalo, with headquarters as before at Cleveland, and on March 16, 1921, he was reappointed principal assistant engineer at Cleveland. Mr. Reinsagen was promoted to assistant chief engineer on July 1, 1929, and continued in that position until his retirement.

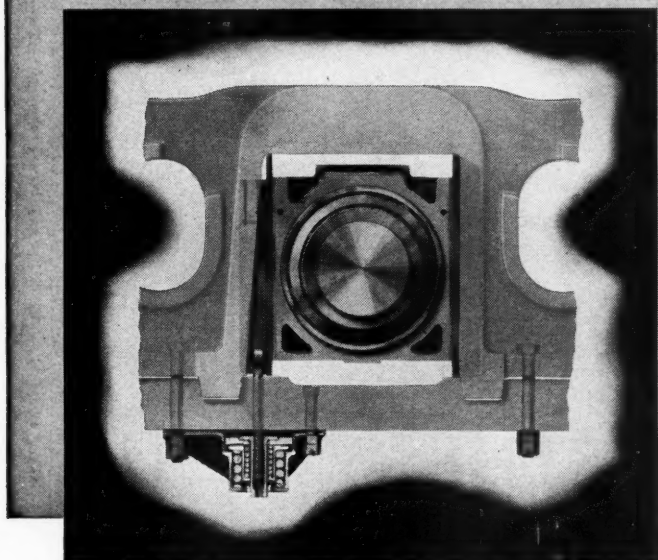
**Herman J. Pfeifer**, consulting engineer and former chief engineer of the Terminal Railroad Association of St. Louis, whose death in that city on March 16, was announced in the *Railway Age* of March 29, was born in St. Louis on February 23, 1871. He graduated from St. Louis University in 1889 and attended the Washington University School of Engineering for one year. He entered railway service on April 28, 1892, as a rodman and draftsman for the St. Louis Merchants Bridge Terminal Railway (now part of the Terminal Railroad Association of St. Louis), and in August, 1893, he was transferred to chief engineer's office of the Terminal Railroad Association. In 1896 he was promoted to assistant engineer and on January 1, 1902, he was advanced to principal assistant engineer. Mr. Pfeifer left the service of the T. R. R. A. on August 1, 1902, to become general superintendent of street construction for the city of St. Louis, and on September 1, 1905, he returned to the T. R. R. A. as engineer maintenance of way. During the period of federal control of the railroads, he was appointed chief engineer of the St. Louis and East St. Louis Terminal district and returned to the T. R. R. A. as chief engineer in 1920. On February 17, 1941, Mr. Pfeifer was appointed consulting engineer, which position he held until his death.



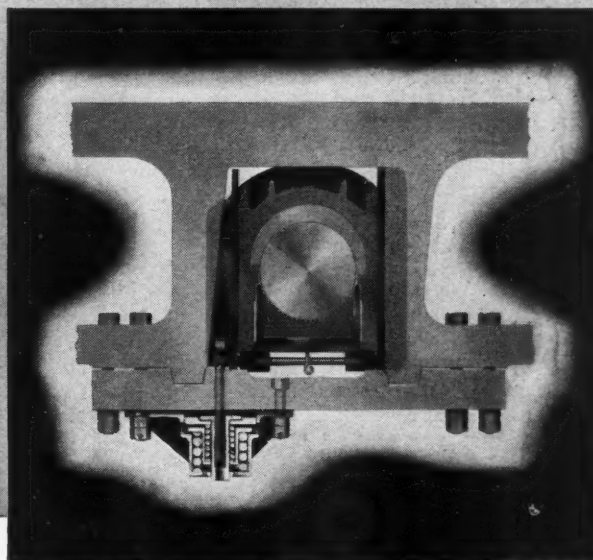
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Franklin Automatic Compensator and Snubber  
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### FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK

CHICAGO

MONTREAL



## REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1941

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation		Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Equip-ment	Traffic		Operating income	Net railway operating income	1941	1940
Akron, Canton & Youngstown .....	171	\$210,552	\$28	\$220,580	\$22,519	\$21,033	\$13,859	59.7	\$88,935	\$131,567	\$67,199	\$36,224
Alton .....	959	953,315	227,375	1,365,699	121,760	228,262	44,100	58.5	190,023	268,174	144,738	83,543
Alton .....	959	1,946,453	473,028	2,814,473	258,031	464,553	88,892	75.6	333,620	1,032,673	229,047	56,169
Atchison, Topeka & Santa Fe System .....	13,431	11,073,931	1,635,731	13,878,465	1,647,746	3,092,251	4,853,479	75.4	692,036	2,122,437	487,691	41,020
Atlanta & West Point .....	13,431	22,508,432	3,358,942	28,198,448	3,320,762	6,334,644	938,756	75.4	3,414,249	10,464,216	1,923,539	438,346
Atlanta & West Point .....	93	22,608	25,119	169,930	13,835	26,130	66,705	76.0	6,771,945	21,424,663	3,771,945	978,408
Atlanta & West Point .....	93	246,052	60,785	381,616	33,864	52,609	16,899	74.4	43,552	126,378	26,983	1,998
Western of Alabama .....	133	116,040	26,169	159,929	21,216	30,601	59,846	81.1	87,424	104,644	54,793	3,098
Atlanta, Birmingham & Coast .....	133	236,037	62,609	344,842	40,398	62,960	16,017	78.5	30,198	129,731	13,544	3,365
Atlanta, Birmingham & Coast .....	639	261,017	51,032	333,979	52,857	102,583	24,841	78.5	71,965	262,877	36,876	5,731
Atlanta, Birmingham & Coast .....	639	551,335	96,005	687,592	106,383	109,041	47,423	84.9	50,313	283,666	26,515	—19,398
Atlantic Coast Line .....	5,098	3,764,589	1,389,080	5,629,052	416,667	892,701	176,747	65.1	110,110	3,666,351	1,437,701	659,348
Charleston & Western Carolina .....	343	7,900,432	2,346,952	11,409,301	850,923	1,779,202	367,478	65.9	1,962,701	7,517,885	2,866,416	1,036,113
Charleston & Western Carolina .....	343	250,842	945	257,005	24,305	34,740	9,901	59.4	3,891,416	152,766	69,239	27,774
Baltimore & Ohio .....	343	507,519	3,110	520,774	46,728	69,034	18,350	58.3	104,239	303,465	147,309	67,230
Baltimore & Ohio .....	6,386	13,701,911	914,048	15,432,413	1,436,555	3,375,670	536,412	73.5	217,309	11,339,235	3,115,770	1,348,025
Staten Island Rapid Transit .....	6,386	28,115,419	1,992,845	31,810,478	2,919,710	7,371,066	1,087,896	72.9	4,093,178	23,194,654	6,631,745	3,114,334
Staten Island Rapid Transit .....	24	61,093	62,415	129,951	9,552	21,483	1,087	91.8	8,615,824	119,324	15,121	—29,985
Bangor & Aroostook .....	24	123,569	128,469	266,236	24,213	42,888	2,207	93.9	16,136	250,100	—34,928	—60,449
Bangor & Aroostook .....	603	517,075	23,840	558,216	76,728	97,373	5,114	60.6	219,876	338,340	150,826	118,096
Beasemer & Lake Erie .....	603	1,095,051	39,518	1,311,362	167,672	187,402	1,070	62.7	219,876	696,862	291,428	266,277
Beasemer & Lake Erie .....	224	879,712	725	881,422	125,081	140,799	1,079	76.1	414,380	188,101	172,639	198,335
Boston & Maine .....	224	1,082,725	1,560	1,825,671	244,342	659,770	24,121	75.8	213,321	1,384,659	262,349	156,054
Boston & Maine .....	1,906	3,117,008	612,039	4,217,672	456,573	596,583	74,241	68.1	441,012	2,873,626	951,386	307,079
Burlington, Rock Island .....	1,906	6,233,650	1,249,643	8,441,784	1,069,715	1,196,770	139,036	71.5	1,344,046	6,307,027	1,691,571	855,270
Burlington, Rock Island .....	255	59,216	18,095	85,470	12,137	13,652	4,680	95.7	2,404,757	81,803	—5,729	5,321
Cambria & Indiana .....	255	118,577	35,468	171,359	31,109	29,810	9,413	107.2	3,667	183,732	—31,289	—6,659
Canadian Pacific Lines in Maine .....	38	157,157	.....	157,241	5,028	60,807	394	55.6	12,273	94,822	27,741	93,030
Canadian Pacific Lines in Maine .....	38	330,805	.....	330,997	10,987	120,236	822	53.2	69,805	176,436	64,040	223,829
Canadian Pacific Lines in Maine .....	234	344,154	15,174	373,406	20,505	59,102	6,705	58.7	154,327	219,079	142,708	102,501
Canadian Pacific Lines in Maine .....	234	735,937	30,289	795,781	47,347	124,960	13,431	57.4	339,194	456,587	315,387	242,212
Canadian Pacific Lines in Vermont .....	91	80,438	6,693	96,904	9,557	23,103	67,656	108.9	—8,672	105,576	—15,234	—37,375
Central of Georgia .....	91	173,424	16,434	211,365	20,137	46,556	4,752	102.0	—4,267	215,632	—16,934	—70,282
Central of Georgia .....	1,863	1,240,041	159,543	1,548,161	166,977	285,717	54,181	77.9	341,958	1,206,203	223,910	193,003
Central of Georgia .....	1,863	2,467,321	313,352	3,090,492	345,811	579,507	109,397	79.7	626,314	2,464,178	388,983	11,823
Central of New Jersey .....	711	2,554,611	325,433	3,046,940	258,321	690,970	43,982	75.1	757,640	2,289,300	382,051	209,452
Central Vermont .....	711	5,280,715	681,433	6,298,333	595,053	1,492,024	215,369	76.4	1,484,027	4,814,316	682,002	327,411
Central Vermont .....	422	505,129	38,937	574,313	57,236	100,262	29,083	72.4	158,792	415,501	135,501	56,133
Chesapeake & Ohio .....	422	957,446	72,634	1,093,967	105,941	200,937	21,607	76.3	259,642	834,325	211,748	125,587
Chesapeake & Ohio .....	3,114	9,357,557	222,402	9,860,590	1,053,376	1,941,316	199,714	59.4	4,007,753	5,852,837	2,645,876	2,996,188
Chicago & Eastern Illinois .....	3,114	19,095,093	536,907	20,198,263	2,122,174	4,001,237	392,935	59.4	8,200,492	11,997,771	5,384,172	5,575,864
Chicago & Eastern Illinois .....	925	1,058,142	148,408	1,356,287	130,753	250,885	58,380	74.6	344,157	1,012,130	259,157	57,865
Chicago & Eastern Illinois .....	925	2,231,976	314,168	2,851,167	272,590	510,591	120,706	73.4	759,420	2,091,747	589,420	139,034
Chicago & Illinois Midland .....	131	392,102	555	406,589	44,434	71,831	20,907	61.9	154,797	251,792	101,275	76,155
Chicago & North Western .....	131	808,082	1,170	841,572	89,313	144,749	48,757	62.3	317,312	524,260	207,168	193,375
Chicago & North Western .....	8,319	5,289,345	834,888	6,913,354	1,297,714	2,297,714	2,807,984	79.5	1,414,332	5,499,022	766,116	624,029
Chicago & North Western .....	8,319	10,843,579	1,821,880	14,280,959	1,836,041	2,645,087	380,130	79.2	2,968,017	11,312,942	1,731,346	1,285,947
Chicago, Burlington & Quincy .....	8,958	6,149,827	724,038	7,710,003	573,912	1,293,043	250,195	67.7	2,491,859	5,218,144	1,802,224	649,579
Chicago Great Western .....	8,958	12,707,672	1,524,966	15,925,498	1,161,230	2,634,492	5,837,296	67.3	5,214,903	10,710,505	3,820,705	1,401,245
Chicago Great Western .....	1,502	1,330,239	44,128	1,475,900	169,465	221,070	59,635	71.9	415,359	1,060,541	321,013	142,909
Chicago Great Western .....	1,502	2,804,109	111,947	3,134,927	352,615	456,984	122,485	70.8	915,270	2,219,657	685,256	327,314
Chicago, Indianapolis & Louisville .....	549	684,191	30,703	774,365	62,067	145,095	26,683	69.9	233,120	541,245	186,711	90,692
Chicago, Indianapolis & Louisville .....	549	1,409,310	70,319	1,605,239	132,903	307,288	56,803	70.4	475,266	1,129,973	381,324	151,811

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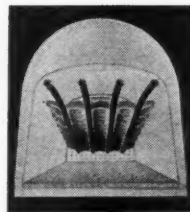
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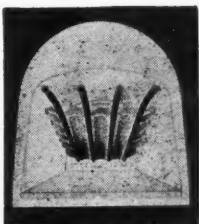
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***Locomotive Combustion  
Specialists***



REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1941—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues				Operating expenses				Operating ratio	Net railway operating income	Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Way and structures	Maintenance of equipment	Traffic	Trans- portation	Total			1941	1940
Chicago, Milwaukee, St. Paul & Pacific	Feb. 10,855	\$7,605,618	\$654,110	\$9,060,985	\$726,231	\$1,646,252	\$214,229	\$3,371,603	\$6,346,406	70.0	\$2,714,579	\$1,665,501	\$792,362
Chicago, Rock Island & Pacific	Feb. 10,855	15,680,143	1,408,876	18,763,434	1,544,830	3,430,046	432,645	7,002,623	13,206,204	70.4	4,127,230	3,421,923	2,010,094
Chicago, Rock Island & Pacific	Feb. 7,997	5,234,920	776,485	6,503,774	592,473	1,197,312	261,321	2,442,048	4,840,912	74.4	1,664,862	1,178,200	869,467
Chicago, St. Paul, Minneapolis & Omaha	Feb. 7,997	10,643,511	1,715,063	13,404,454	1,193,453	2,430,390	526,386	5,041,223	9,892,280	73.8	3,512,174	2,532,819	1,928,838
Clinchfield Railroad	Feb. 1,629	1,120,843	119,728	1,330,336	145,073	233,006	27,786	633,891	1,133,960	85.2	196,376	86,357	167,872
Columbus & Greenville	Feb. 1,629	2,331,357	259,193	2,644,513	291,038	484,459	78,002	1,352,914	2,341,145	84.4	433,668	208,322	127,380
Colorado & Southern	Feb. 308	843,893	3,273	854,755	41,273	120,177	19,351	155,504	355,971	41.6	1,009,133	835,836	398,356
Fort Worth & Denver City	Feb. 308	1,112,143	6,719	1,730,582	73,166	253,994	38,487	319,449	721,449	41.7	1,009,133	835,836	778,291
Colorado & Wyoming	Feb. 786	456,979	39,933	543,497	49,134	108,755	12,529	194,471	390,295	71.8	153,202	86,080	70,461
Columbus & Greenville	Feb. 804	968,674	74,453	1,143,676	82,020	219,197	25,416	411,511	794,109	69.4	349,567	165,775	39,264
Delaware & Hudson	Feb. 804	315,201	48,636	427,945	49,749	73,544	17,893	151,548	324,363	75.8	103,582	68,468	39,709
Delaware, Lackawanna & Western	Feb. 804	636,897	98,943	868,105	104,369	145,347	36,657	311,773	661,633	76.2	206,474	136,573	82,052
Denver & Rio Grande Western	Feb. 42	77,232	.....	120,826	5,146	11,668	512	43,215	64,693	53.54	56,133	34,521	33,866
Denver & Salt Lake	Feb. 42	168,263	.....	261,519	9,294	23,030	1,066	85,296	127,037	48.57	134,482	81,089	71,376
Detroit & Mackinac	Feb. 168	89,289	2,455	97,279	11,946	16,718	5,671	32,878	78,420	80.6	18,859	8,696	5,789
Detroit & Toledo Shore Line	Feb. 168	184,223	5,602	200,385	26,215	33,430	9,607	68,715	169,586	84.4	31,299	12,362	14,045
Detroit, Toledo & Ironton	Feb. 849	2,179,759	71,504	2,327,734	233,029	449,223	39,665	845,329	1,652,828	71.0	674,906	520,389	481,451
Duluth, Missabe & Iron Range	Feb. 847	4,400,122	158,269	4,558,391	406,645	966,645	80,955	1,715,708	3,363,587	71.5	1,345,090	1,034,387	958,094
Duluth, Winnipeg & Pacific	Feb. 995	3,401,514	493,600	4,304,745	227,092	780,432	109,745	1,868,708	3,156,713	72.3	1,468,030	1,220,330	705,378
Elgin, Joliet & Eastern	Feb. 995	7,000,872	1,036,524	8,500,945	477,483	1,552,592	213,427	3,865,963	6,453,664	72.3	2,447,281	1,560,581	1,504,843
Florida East Coast	Feb. 2,547	1,668,587	73,035	1,826,378	142,715	648,736	77,921	1,211,197	1,669,649	91.4	156,729	40,523	80,997
Georgia Railroad	Feb. 2,550	3,572,588	219,141	3,976,505	283,581	1,238,897	156,857	1,505,678	3,350,818	84.3	625,687	218,413	163,970
Georgia & Florida	Feb. 232	150,614	5,028	165,726	16,296	44,016	2,746	57,541	130,350	78.7	35,376	10,634	105,430
Grand Trunk Western	Feb. 232	363,949	11,171	394,467	38,096	85,736	5,293	126,307	274,753	69.6	119,714	69,721	277,733
Green Bay & Western	Feb. 242	36,970	1,823	47,371	6,794	11,352	872	23,116	45,300	95.6	1,244	4,269	6,217
Gulf & Ship Island	Feb. 242	72,388	6,114	96,236	14,910	22,711	1,958	48,662	94,541	95.6	1,695	4,893	11,819
Great Northern	Feb. 50	400,577	.....	401,802	19,261	24,387	8,817	90,132	150,043	37.3	251,753	189,261	104,074
Great Northern	Feb. 50	795,906	.....	798,306	39,751	49,763	17,595	183,335	305,368	38.3	492,938	369,068	232,337
Green Bay & Western	Feb. 472	889,598	175	907,116	51,358	137,832	12,075	181,430	402,861	44.4	504,255	352,346	294,876
Gulf & Ship Island	Feb. 472	1,690,581	3,560	1,729,610	104,738	230,568	21,227	331,648	751,359	43.4	978,251	606,154	646,424
Illinois Central	Feb. 541	11,318	3,646	13,672	133,54	236,67	3,558	162,457	567,119	41.8	430,391	771,113	517,953
Illinois Central	Feb. 541	195,375	4,787	241,084	286,112	464,579	8,402	386,017	1,152,500	478.0	911,416	1,598,220	1,057,677
Illinois Central	Feb. 175	145,970	573	149,938	21,608	19,556	1,996	64,109	111,169	74.1	38,769	27,487	10,125
Illinois Central	Feb. 175	294,447	2,256	303,227	37,615	40,519	3,939	124,834	214,529	70.7	88,698	65,665	27,884
Illinois Central	Feb. 390	2,001,667	1	2,260,811	140,153	289,936	15,082	755,979	1,239,953	54.8	1,020,858	735,072	577,278
Illinois Central	Feb. 390	4,093,844	6	4,636,428	288,666	641,665	30,570	1,525,536	2,564,467	55.3	2,071,961	1,489,796	1,180,484
Illinois Central	Feb. 2,266	6,514,267	344,694	7,273,424	473,392	1,312,014	178,941	2,662,360	4,895,464	67.3	2,377,960	1,792,750	1,497,165
Illinois Central	Feb. 2,266	13,287,246	716,944	14,868,791	970,946	2,670,293	356,731	5,476,396	10,016,997	67.4	4,851,794	3,674,093	1,680,333
Illinois Central	Feb. 685	590,807	630,940	1,366,037	109,548	146,192	31,216	392,032	765,877	56.1	600,160	523,372	449,688
Illinois Central	Feb. 685	1,252,913	1,145,860	2,686,792	216,657	320,068	67,933	841,145	1,635,824	60.9	1,050,968	895,183	708,091
Illinois Central	Feb. 329	324,306	15,867	364,332	32,085	62,133	18,222	144,176	271,117	74.4	93,215	78,005	40,097
Illinois Central	Feb. 329	668,210	33,259	750,182	63,020	122,560	37,232	303,517	554,330	73.9	195,852	165,285	79,001
Illinois Central	Feb. 408	95,848	1,060	100,376	20,623	19,616	8,988	38,291	92,613	92.3	7,763	65	171,189
Illinois Central	Feb. 408	195,899	2,323	205,502	43,833	35,285	18,032	78,142	185,831	90.4	19,671	4,196	5,716
Illinois Central	Feb. 1,029	2,112,628	68,544	2,331,540	226,445	375,057	37,298	885,838	1,588,822	68.1	742,718	613,790	538,131
Illinois Central	Feb. 1,029	4,246,822	141,805	4,696,057	460,832	808,484	74,384	1,814,043	3,290,946	70.1	1,405,111	1,142,623	925,600
Illinois Central	Feb. 172	112,651	2,801	133,156	25,991	24,773	3,910	64,171	131,160	98.5	1,996	14,147	58,021
Illinois Central	Feb. 172	223,834	7,088	267,497	48,764	43,402	5,328	127,341	242,452	90.7	25,045	7,241	91,804
Illinois Central	Feb. 8,066	4,991,488	297,910	5,718,270	793,637	1,508,271	175,971	2,234,755	4,954,250	86.6	764,030	158,669	42,846
Illinois Central	Feb. 8,066	10,247,019	644,373	11,804,676	1,538,070	3,097,708	347,759	4,688,793	10,174,111	86.2	1,630,265	268,290	70,227
Illinois Central	Feb. 234	139,298	284	144,476	21,428	17,399	8,651	49,544	101,532	70.2	42,944	27,515	17,844
Illinois Central	Feb. 234	304,620	574	313,356	41,623	36,494	17,871	102,733	208,852	66.6	104,504	74,345	46,036
Illinois Central	Feb. 259	88,340	10,251	107,802	18,883	14,271	3,090	54,931	95,067	88.2	12,735	4,521	18,302
Illinois Central	Feb. 259	202,294	23,199	244,148	36,477	31,881	6,290	112,765	197,676	81.0	46,472	11,771	15,585

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IF "NORMAL SCHEDULES" ARE  
*too tough*  
FOR YOUR OLDER LOCOMOTIVES

R<sub>x</sub>

*We have a remedy*

Shippers have come to expect as normal the schedules that have been set by the super-power, high-speed locomotives of the past few years. Those older locomotives are lacking in power to meet these schedules economically.

But this condition can be greatly improved . . . quickly and economically . . . by modernizing. By employing higher degrees of superheated steam and installing Elesco feedwater heaters, the power of your older locomotives can be increased enough to enable them to render useful and valuable service when called upon.

The remedy is simple and not too expensive.



SUPERHEATERS • FEEDWATER HEATERS  
AMERICAN THROTTLES • STEAM DRYERS  
EXHAUST STEAM INJECTORS • PYROMETERS

THE  
**SUPERHEATER**  
C O M P A N Y

Representative of  
AMERICAN THROTTLE COMPANY, INC.  
60 East 42nd Street, NEW YORK  
122 S. Michigan Ave. CHICAGO  
Montreal, Canada  
THE SUPERHEATER COMPANY, LTD.



## REVENUES AND EXPENSES OF RAILWAYS

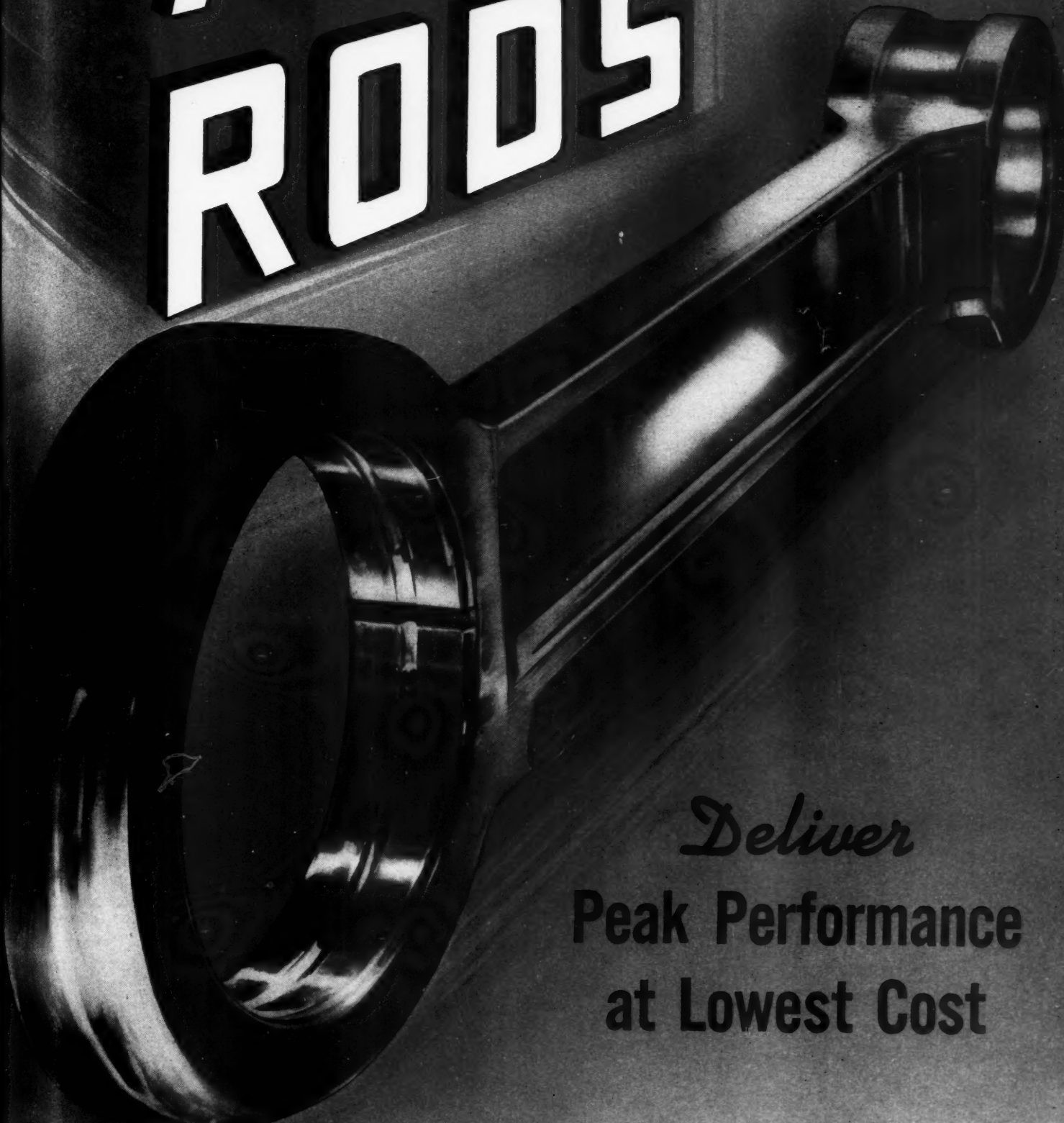
MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1941—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income		
		Freight	Passenger	Total (inc. misc.)	Way and structures	Maintenance of equip-	Traffic			Trans- portation	Total	Operating income
Gulf, Mobile & Ohio.....	1,973	\$1,499,099	\$35,018	\$1,534,117	\$206,096	\$246,884	\$84,995	\$488,617	\$1,112,063	\$314,103	\$218,113	\$48,453
Illinois Central.....	4,949	3,127,452	81,494	3,208,946	431,180	523,480	166,713	1,018,309	2,325,686	656,654	470,214	99,104
Yazoo & Mississippi Valley.....	1,608	840,254	48,188	888,442	122,746	177,621	32,600	480,265	856,655	212,812	111,237	232,209
Illinois Central System.....	6,557	8,216,895	103,853	8,320,748	240,867	359,034	99,970	999,700	1,760,930	76,937	295,838	383,973
Illinois Terminal.....	477	378,298	56,900	435,198	74,135	99,405	16,498	165,724	305,881	121,096	99,231	88,722
Kansas City Southern.....	879	1,170,954	52,502	1,223,456	118,239	187,659	32,134	369,347	643,206	234,156	187,953	191,835
Kansas, Oklahoma & Gulf.....	328	189,137	423	191,798	9,926	9,953	8,718	41,127	80,434	89,564	73,896	58,759
Lake Superior & Ishpeming.....	156	27,012	74	27,086	16,867	29,518	589	20,571	163,513	188,376	156,134	147,168
Lehigh & Hudson River.....	96	150,538	.....	151,222	17,858	26,735	3,690	45,732	100,058	66,2	23,292	16,292
Lehigh & New England.....	190	329,078	.....	331,080	37,085	60,064	7,651	107,972	217,343	65,6	48,890	31,080
Lehigh Valley.....	1,269	3,637,639	159,476	3,797,115	323,438	520,448	103,125	1,610,357	2,684,432	66,6	113,737	179,939
Louisiana & Arkansas.....	881	7,406,650	325,433	7,732,083	475,566	1,339,189	206,753	3,314,276	5,990,666	67,0	85,452	66,602
Louisville & Nashville.....	4,865	7,458,699	663,618	8,122,317	847,897	1,724,033	189,308	2,784,396	1,603,286	59,1	196,124	172,374
Maine Central.....	991	1,053,728	66,028	1,119,756	179,767	193,221	10,825	402,862	770,397	64,5	78,109	66,602
Midland Valley.....	352	295,335	6	295,341	8,523	10,544	2,400	28,357	1,603,286	68,1	179,939	172,374
Minneapolis & St. Louis.....	1,409	671,254	12,448	683,702	80,224	142,773	48,557	262,332	770,397	64,5	78,109	66,602
Minneapolis, St. Paul & Sault Ste. Marie.....	4,267	1,858,220	49,033	1,907,253	164,007	277,056	99,563	542,026	1,603,286	68,1	179,939	172,374
Duluth, South Shore & Atlantic.....	550	142,858	6,559	149,417	65,484	66,317	14,628	137,289	56,271	55,8	74,340	93,312
Spokane International.....	152	45,153	516	46,111	7,957	6,475	19,943	931,076	1,742,754	84,8	42,522	45,428
Mississippi Central.....	158	97,525	1,180	98,705	15,131	12,702	4,409	1,936,685	3,573,603	84,6	42,522	45,428
Missouri & Arkansas.....	365	184,340	2,780	187,120	13,097	11,550	7,565	22,282	1,742,754	84,8	42,522	45,428
Missouri-Illinois.....	193	357,993	407	358,400	26,294	22,628	15,087	47,911	3,573,603	84,6	42,522	45,428
Missouri-Kansas-Texas Lines.....	3,293	1,874,413	180,124	2,054,537	283,019	385,582	59,011	1,936,685	3,573,603	84,6	42,522	45,428
Missouri Pacific.....	7,146	6,428,561	604,809	7,033,370	565,061	755,861	122,539	1,936,685	3,573,603	84,6	42,522	45,428
Gulf Coast Lines.....	1,772	1,276,570	46,086	1,322,656	184,568	224,468	33,485	92,604	1,936,685	84,6	42,522	45,428
International Great Northern.....	1,155	1,564,323	180,390	1,744,713	213,847	270,961	106,209	1,797,007	3,573,603	84,6	42,522	45,428
Monongahela.....	172	394,402	511	395,313	30,311	29,412	92,116	5,550,149	11,083,174	70,3	2,971,739	1,510,033
		787,153	992	788,145	60,141	62,100	186,389	31,476	1,742,754	84,8	42,522	45,428
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# ALCO RODS

A large, polished metal rod, likely a piston rod, is shown diagonally across the frame. It has a circular flange at one end and a threaded section at the other. The rod is highly reflective, showing bright highlights and dark shadows. The background is dark and textured.

*Deliver*  
Peak Performance  
at Lowest Cost

AMERICAN LOCOMOTIVE COMPANY



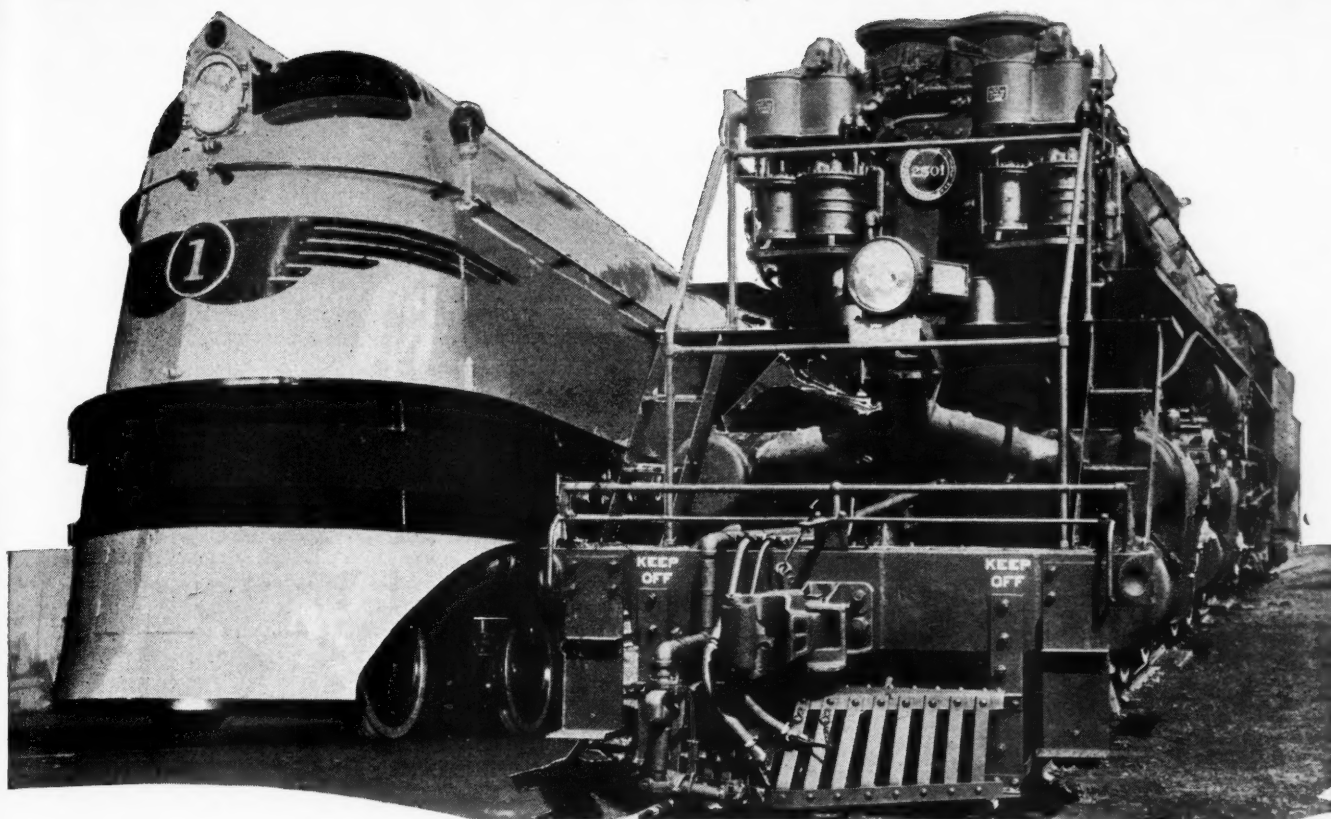
## REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1941—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net railway operating income	
		Freight	Passenger	Total	Way and structures	Maintenance of equipment	Traffic		Operating income	Net railway operating income
Montour .....	51	\$161,568	.....	\$163,152	\$8,596	\$37,510	\$680	60.3	\$64,772	\$60,701
..... 2 mos.	51	314,787	.....	319,036	18,151	75,388	1,411	61.9	121,485	116,489
Nashville, Chattanooga & St. Louis .....	1,111	1,105,559	\$130,348	1,355,462	127,892	256,992	71,714	76.0	223,243	178,017
..... 2 mos.	1,111	2,289,227	268,496	2,828,226	259,014	536,769	141,019	75.0	491,443	403,338
Nevada Northern .....	165	46,153	497	51,525	8,983	3,751	1,215	58.1	21,591	10,943
..... 2 mos.	165	93,349	1,086	103,640	18,127	6,532	2,433	58.0	43,547	19,759
New York Central .....	10,943	23,851,921	4,745,729	31,678,905	3,363,230	6,682,149	520,837	74.4	8,107,270	3,985,344
..... 2 mos.	10,943	48,802,720	10,285,238	65,487,679	6,219,047	13,998,623	1,061,903	73.7	17,211,499	8,736,293
Pittsburgh & Lake Erie .....	233	1,888,380	43,671	1,986,486	169,365	681,027	33,714	78.4	428,499	486,417
..... 2 mos.	233	3,840,010	90,652	4,043,881	342,231	1,333,311	70,933	78.8	837,186	958,814
New York, Chicago & St. Louis .....	1,705	3,973,727	52,228	4,129,887	334,048	583,662	119,932	60.8	1,272,654	963,338
..... 2 mos.	1,705	8,085,603	126,554	8,423,410	691,081	1,177,145	234,506	60.8	3,299,955	1,996,668
New York, New Haven & Hartford .....	1,853	4,506,569	2,182,980	7,379,129	775,592	1,176,532	96,584	69.9	2,219,201	996,929
..... 2 mos.	1,853	9,157,274	4,407,669	14,980,318	1,590,983	2,401,807	198,132	71.1	4,336,113	1,897,043
New York Connecting .....	21	314,580	.....	323,089	36,879	8,488	.....	22.0	251,949	223,847
..... 2 mos.	21	645,052	.....	660,922	75,527	18,332	.....	22.6	511,331	481,495
New York, Ontario & Western .....	576	365,247	6,372	409,965	44,223	104,302	16,432	102.7	—10,883	—53,629
..... 2 mos.	576	737,564	13,225	855,408	89,595	199,565	31,391	99.4	—8,709	—132,813
New York, Susquehanna & Western .....	144	247,945	25,692	286,628	16,033	59,595	2,268	62.0	109,764	79,971
..... 2 mos.	144	506,798	53,023	589,516	35,007	51,933	5,010	61.3	227,887	168,476
Norfolk & Western .....	2,191	8,660,985	244,958	9,113,302	840,929	1,919,499	142,773	55.1	4,088,596	2,343,152
..... 2 mos.	2,191	17,881,332	507,033	18,829,548	1,797,769	3,879,957	279,671	54.5	8,569,064	4,995,419
Norfolk Southern .....	733	368,291	5,020	385,303	83,140	53,306	25,151	82.2	68,660	37,541
..... 2 mos.	733	739,624	8,266	772,659	152,119	107,663	47,649	81.2	145,369	81,546
Northern Pacific .....	6,718	4,156,674	254,049	4,826,225	581,955	1,075,503	146,889	80.7	930,881	326,922
..... 2 mos.	6,718	8,329,380	582,983	9,974,957	1,203,670	2,210,611	299,844	81.8	1,815,314	590,967
Northwestern Pacific .....	352	184,771	23,921	210,692	60,539	41,301	3,381	110.8	—24,441	—43,416
..... 2 mos.	352	379,344	48,216	468,439	121,723	86,423	5,929	109.6	—45,124	—84,518
Oklahoma City-Ada-Atoka .....	132	17,391	—	17,810	3,555	1,824	1,67	85.4	2,606	199
..... 2 mos.	132	38,224	—	39,010	7,484	3,534	1,67	78.1	8,327	3,692
Pennsylvania .....	10,246	31,350,646	6,247,188	40,701,866	3,971,402	9,803,779	695,531	74.5	10,391,337	6,551,668
..... 2 mos.	10,246	63,334,270	13,483,143	83,305,121	8,107,571	19,928,491	1,416,953	74.4	21,339,372	13,640,949
Long Island .....	379	671,408	1,106,258	1,871,167	201,797	326,402	8,141	79.0	393,727	196,368
..... 2 mos.	379	1,302,306	2,253,186	3,754,364	414,824	662,576	16,173	80.8	720,288	313,029
Pennsylvania-Reading Seashore Lines .....	411	288,153	92,150	400,063	63,272	98,195	5,446	110.8	—43,189	—118,381
..... 2 mos.	411	581,156	167,154	789,368	146,653	187,656	11,687	112.5	—122,206	—273,502
Pere Marquette .....	2,102	2,739,993	69,852	2,933,648	338,751	574,651	61,942	72.0	820,925	557,706
..... 2 mos.	2,102	5,644,649	158,137	6,057,725	685,209	1,141,306	122,576	70.5	1,786,292	1,234,590
Pittsburg & Shawmut .....	98	73,585	.....	73,585	12,233	37,279	2,671	78.8	15,682	13,027
..... 2 mos.	98	154,496	.....	155,277	22,233	37,279	4,524	75.7	37,695	32,435
Pittsburgh & West Virginia .....	136	337,869	12	358,435	63,154	68,208	18,127	69.0	111,182	87,078
..... 2 mos.	136	694,677	12	727,823	122,635	135,557	36,621	66.7	243,332	196,468
Pittsburg, Shawmut & Northern .....	190	125,873	.....	125,873	11,113	16,550	993	56.2	53,502	49,448
..... 2 mos.	190	260,285	.....	262,595	24,318	34,077	2,008	56.6	113,921	103,046
Reading .....	1,439	5,246,981	284,289	5,783,192	393,034	1,155,944	69,802	66.8	1,922,605	1,348,868
..... 2 mos.	1,439	10,733,507	580,918	11,815,469	822,123	2,386,059	139,797	67.2	3,875,832	2,682,474
Richmond, Fredericksburg & Potomac .....	118	494,089	414,699	1,030,604	76,213	161,466	8,894	64.0	371,307	254,164
..... 2 mos.	118	1,058,147	817,162	2,109,348	150,407	320,051	18,732	63.8	764,275	523,268
Rutland .....	407	176,801	23,690	233,855	30,019	55,243	8,680	100.4	—909	—20,860
..... 2 mos.	407	364,882	51,323	459,325	62,055	116,288	19,012	101.6	—8,553	—47,949
St. Louis-San Francisco .....	4,769	3,459,970	278,255	4,059,320	501,584	834,668	118,608	76.8	935,741	636,031
..... 2 mos.	4,769	7,108,870	662,529	8,446,358	1,021,122	1,736,566	237,523	75.8	2,047,916	1,417,303
St. Louis, San Francisco & Texas .....	159	116,193	461	121,473	21,119	13,559	8,057	81.3	22,680	14,786
..... 2 mos.	159	232,247	2,257	243,943	43,246	27,339	15,958	82.3	43,073	27,310

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# High Revenue Producers

**T**HE service built into HUNT-SPILLER *Air Furnace* GUN IRON is recognized by leading railroad men to be one of the important factors contributing to the high revenues produced by modern power.

Increasing weights, frictional wear, stresses and temperatures have greatly emphasized the value of this material which insures maximum efficiency, greater mileage and fewer failures.

Standardization on the complete line of H S G I parts listed below will help to obtain greater earnings from your locomotives. Note that Diesel power is also included.

H S G I

Reg. U.S. Trade Mark

Cylinder Bushings  
Cylinder Packing Rings  
Pistons or Piston Bull Rings  
Valve Bushings  
Valve Packing Rings  
Valve Bull Rings  
Crosshead Shoes  
Hub Liners  
Shoes and Wedges  
Floating Rod Bushings

Finished Parts

Dunbar Sectional Type Packing  
Duplex Sectional Type Packing  
for Cylinders and Valves  
(Duplex Springs for Above)  
Sectional Packing Rings  
Cylinder Snap Rings  
Valve Rings All Shapes  
Light Weight Valves  
Cylinder Liners and Pistons  
for Diesel Service

## HUNT-SPILLER MFG. CORPORATION

V.W. Ellet Pres. & Gen. Mgr. / E. J. Fuller Vice-President

### Office & Works

383 Dorchester Ave.

South Boston, Mass.

Canadian Representative: Joseph Robb & Co., Ltd., 5575 Cote St. Paul Rd., Montreal, P. Q.

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# HUNT-SPILLER GUN IRON

*Air Furnace*



## REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1941—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues				Operating expenses			Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Traffic	Trans- portation	Total			1941	1940
St. Louis Southwestern Lines	1,649	\$1,775,711	\$51,495	\$1,891,063	\$190,073	\$81,507	\$541,520	\$1,165,222	61.6	\$725,841	\$615,728	\$306,506
Seaboard Air Line	1,649	3,673,553	92,190	3,902,478	422,105	165,557	1,110,157	2,456,812	63.0	1,445,666	1,222,596	488,992
Seaboard Air Line	4,310	3,590,600	1,047,388	5,045,965	569,357	187,587	1,734,735	3,623,447	71.8	1,424,518	1,047,518	874,595
Seaboard Air Line	4,310	7,314,457	2,075,385	10,212,209	1,174,877	385,224	3,628,454	7,526,542	73.7	2,685,667	1,935,667	994,767
Southern Railway	6,567	8,289,000	817,319	9,754,759	1,076,461	352,439	3,140,604	6,288,200	64.5	3,466,550	2,627,770	1,334,759
Southern Railway	6,567	16,836,932	1,722,100	19,892,647	2,183,975	752,339	6,595,213	12,955,455	65.1	6,937,092	5,059,990	2,694,570
Alabama Great Southern	315	620,595	70,582	742,291	80,258	18,499	214,610	502,903	67.8	239,388	166,545	100,852
Alabama Great Southern	315	1,233,715	160,703	1,493,048	169,941	29,947	432,357	1,026,222	68.7	466,826	291,917	144,319
Cincinnati, New Orleans & Texas Pacific	337	1,362,064	187,227	1,636,927	161,160	29,173	412,608	978,449	59.8	658,478	438,055	378,531
Georgia Southern & Florida	337	2,802,203	410,392	3,386,342	320,347	57,738	849,482	1,985,002	58.6	1,401,340	955,919	756,329
Georgia Southern & Florida	398	2,317,700	67,005	3,386,342	38,240	2,691	118,351	216,836	62.1	132,300	91,283	27,168
Georgia Southern & Florida	398	476,992	142,245	720,794	77,321	5,099	245,971	441,814	61.3	278,980	197,596	44,302
New Orleans & Northeastern	204	282,936	36,522	337,594	40,627	5,696	88,792	179,331	53.1	158,263	114,573	87,830
Southern Pacific	8,606	11,922,083	1,699,273	14,673,604	1,342,609	352,932	2,546,189	10,276,927	70.0	4,396,677	3,228,012	1,633,323
Southern Pacific	8,607	24,389,322	3,444,969	30,081,085	2,711,558	683,925	10,983,278	21,072,099	70.1	9,008,986	6,640,192	5,145,481
Southern Pacific Steamship Lines	.....	779,502	34,615	849,485	18,835	16,491	.....	761,272	89.6	88,213	59,549	41,271
Texas & New Orleans	4,417	1,557,796	54,236	1,693,263	46,097	34,471	1,502,480	1,502,480	88.7	190,783	135,230	126,161
Texas & New Orleans	4,417	3,474,262	401,090	4,175,812	530,134	125,984	1,276,256	2,731,993	65.4	1,443,819	1,139,342	362,260
Texas & New Orleans	4,417	6,959,916	740,565	8,324,772	1,068,027	241,517	2,673,740	5,658,056	68.0	2,666,716	2,056,032	767,507
Spokane, Portland & Seattle	948	699,031	22,051	767,846	112,671	10,297	271,666	502,163	65.4	265,683	192,130	123,395
Tennessee Central	286	1,389,153	51,008	1,540,910	223,155	20,395	554,744	1,015,391	65.9	525,519	374,041	232,093
Tennessee Central	286	2,082,632	3,590	2,255,099	35,174	6,961	73,126	162,874	72.4	62,225	44,476	28,934
Tennessee Central	286	427,106	7,538	461,306	68,951	13,004	154,358	325,000	70.5	136,306	101,603	70,953
Texas & Pacific	1,887	1,893,857	219,632	2,306,050	248,062	73,125	705,367	1,561,662	67.7	744,388	558,181	465,022
Texas & Pacific	1,887	3,866,993	447,058	4,708,920	484,428	149,307	1,455,683	3,212,795	68.2	1,496,125	1,149,780	967,173
Texas Mexican	162	71,286	992	83,413	12,404	10,291	30,862	63,174	75.7	20,239	14,177	9,697
Texas Mexican	162	147,259	1,139	173,594	28,013	6,093	62,648	132,571	76.4	41,023	28,711	21,365
Toledo, Peoria & Western	239	190,862	.....	193,370	24,404	18,258	43,595	112,234	58.0	81,136	55,332	39,844
Union Pacific System	9,892	10,727,726	1,223,957	12,985,919	1,404,249	380,924	4,619,541	10,539,261	81.2	2,446,658	946,703	434,478
Union Pacific System	9,892	22,426,632	2,738,009	27,323,016	2,606,002	805,601	9,852,735	21,465,616	78.6	5,837,400	2,841,045	1,702,240
Utah	111	70,005	.....	70,095	8,292	463	19,354	53,913	76.9	16,182	5,870	8,944
Virginian	653	159,598	.....	159,975	18,272	843	44,207	119,276	74.5	40,756	17,336	15,745
Virginian	653	2,248,328	2,120	2,309,981	178,346	25,524	327,936	964,445	41.8	1,345,536	902,076	524,769
Virginian	653	4,567,571	4,483	4,697,848	357,907	51,514	670,293	1,945,783	41.4	2,752,065	1,863,605	1,979,655
Wabash	2,409	3,747,210	184,022	4,188,845	456,845	146,451	1,518,888	2,963,246	70.7	1,295,599	992,411	661,868
Wabash	2,409	7,426,321	416,725	8,378,972	98,000	29,903	3,092,291	5,988,027	71.5	2,390,045	1,929,979	1,266,404
Ann Arbor	294	351,852	1,248	353,100	22,916	13,002	48,744	269,386	74.7	21,144	18,826	19,228
Ann Arbor	294	700,985	2,899	718,596	46,264	26,447	308,704	544,232	75.7	174,364	129,466	43,506
Western Maryland	859	1,632,160	6,403	1,698,872	175,279	41,506	432,614	1,054,380	62.1	644,492	484,492	452,445
Western Maryland	859	3,400,860	13,158	3,538,510	363,011	83,753	890,778	2,185,624	61.8	1,352,886	1,032,886	976,646
Western Pacific	1,195	1,252,154	34,717	1,311,999	149,426	60,924	536,011	1,032,816	80.2	259,183	162,418	76,125
Western Pacific	1,195	2,593,918	106,263	2,757,080	284,008	124,111	1,120,714	2,166,271	78.6	590,809	401,944	218,096
Wheeling & Lake Erie	507	1,360,998	19	1,412,967	119,814	37,823	386,263	902,868	63.9	510,099	224,664	346,356
Wheeling & Lake Erie	507	2,736,484	19	2,838,842	248,833	74,034	801,390	1,838,417	64.8	1,000,425	465,650	683,233

Table of Freight Operating Statistics appears on next left-hand page





**A GOOD INVESTMENT**

By applying Syphons and other modern equipment, the Minneapolis & St. Louis Railroad brought this old locomotive up to exacting present day requirements.

**Rehabilitate AND  
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**CYCLONE FRONT ENDS**

*To improve both boiler and engine performance.*

**LOCOMOTIVE FIREBOX COMPANY**

NEW YORK

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## Freight Operating Statistics of Large Steam Railways—Selected

Region, road, and year	Miles of road operated	Train-miles	Locomotive-miles		Car-miles		Ton-miles (thousands)		Number of road locomotives on line					
			Principal and helper	Light	Loaded (thousands)	Per cent loaded	Gross excluding locomotives and tenders	Net revenue and non-revenue	Serviceable		Un-serviceable	Per cent un-serviceable		
									Not stored	Stored				
New England Region:														
Boston & Albany .....	1941	362	154,275	159,579	11,347	3,266	66.8	186,269	67,968	57	..	29	33.7	
.....	1940	362	146,059	150,867	10,453	2,986	64.2	174,727	62,112	56	..	30	34.9	
Boston & Maine .....	1941	1,894	309,487	350,524	29,616	10,498	67.2	612,233	232,552	131	..	36	21.6	
.....	1940	1,888	303,085	340,939	26,834	9,833	66.8	572,311	215,094	133	1	49	26.8	
N. Y., New H. & Hartf.†.....	1941	1,830	388,486	481,077	31,057	13,463	67.0	748,893	285,829	196	2	61	25.6	
.....	1940	1,844	367,457	453,643	28,228	12,083	64.8	684,494	255,377	186	13	51	21.4	
Great Lakes Region:														
Delaware & Hudson .....	1941	844	258,852	300,097	34,647	9,129	63.6	596,473	282,646	119	49	75	30.9	
.....	1940	846	251,778	337,421	35,923	8,059	62.6	523,052	250,665	130	40	70	29.2	
Del., Lack. & Western .....	1941	983	373,643	431,170	59,057	13,731	68.1	817,355	334,667	136	6	63	30.7	
.....	1940	983	406,559	468,279	67,926	13,368	64.6	832,900	341,547	139	2	67	32.2	
Erie (incl. Chi. & Erie)†.....	1941	2,266	726,878	772,514	48,935	31,597	67.6	1,919,338	781,136	248	9	169	39.7	
.....	1940	2,268	692,965	738,362	47,093	28,171	64.9	1,767,905	709,530	230	29	161	38.3	
Grand Trunk Western .....	1941	1,023	270,150	275,959	1,789	8,054	62.0	501,035	177,002	75	1	26	25.5	
.....	1940	1,023	263,146	270,545	1,865	7,082	61.0	446,888	159,208	75	1	27	26.2	
Lehigh Valley .....	1941	1,252	368,146	401,292	61,806	14,003	66.6	876,613	376,571	97	1	74	43.0	
.....	1940	1,265	351,702	395,028	61,755	13,218	63.2	862,276	368,007	130	..	74	36.3	
New York Central .....	1941	10,522	3,052,044	3,228,242	211,947	103,688	60.3	7,066,151	2,999,303	1,018	61	314	22.5	
.....	1940	10,587	2,999,513	3,190,408	199,777	91,945	57.7	6,484,703	2,716,794	952	84	324	23.8	
N. Y., Chicago & St. Louis.....	1941	1,672	581,070	591,699	7,928	21,648	64.4	1,339,154	522,294	173	14	51	5.6	
.....	1940	1,672	605,577	615,030	8,783	19,179	63.1	1,195,167	459,138	174	..	24	12.1	
Pere Marquette .....	1941	2,068	401,437	411,233	8,739	11,257	60.9	726,713	275,115	125	1	33	20.8	
.....	1940	2,081	390,484	400,365	8,613	10,097	59.8	668,249	251,006	124	..	37	23.0	
Pittsburgh & Lake Erie .....	1941	233	87,921	91,123	..	3,469	61.1	289,544	160,630	35	10	17	27.4	
.....	1940	233	82,022	85,062	..	3,061	58.7	267,110	148,879	29	12	24	36.9	
Wabash* .....	1941	2,397	612,301	625,852	12,761	19,984	65.1	1,208,356	448,129	138	18	108	40.9	
.....	1940	2,397	618,404	637,521	12,719	17,983	63.5	1,102,603	400,867	156	6	108	40.0	
Central Eastern Region:														
Baltimore & Ohio .....	1941	6,261	1,694,222	2,089,962	221,853	52,012	61.9	3,619,985	1,637,714	719	150	271	23.8	
.....	1940	6,262	1,600,582	1,998,207	218,259	46,288	60.8	3,279,712	1,494,133	695	125	380	31.7	
Central of New Jersey †.....	1941	680	195,609	219,413	40,375	5,834	62.5	404,415	201,448	80	14	53	36.1	
.....	1940	679	191,186	215,356	39,633	5,668	58.6	422,926	208,611	84	3	69	44.2	
Chicago & Eastern Ill. ....	1941	925	189,974	190,234	3,143	5,128	65.5	324,843	142,060	59	1	29	32.6	
.....	1940	925	188,779	189,841	3,387	4,617	65.2	295,984	128,292	59	..	31	34.4	
Elgin, Joliet & Eastern.....	1941	390	129,629	131,205	1,397	3,287	56.3	265,545	129,238	63	..	13	17.1	
.....	1940	390	123,187	125,671	2,337	2,934	57.9	235,203	115,744	62	..	15	19.5	
Long Island .....	1941	375	27,054	28,418	17,577	261	51.7	19,761	7,726	40	2	6	12.5	
.....	1940	375	27,117	28,532	18,483	259	51.3	20,805	8,519	38	..	10	20.8	
Pennsylvania System .....	1941	9,960	3,304,734	3,973,360	462,504	123,427	61.4	8,436,799	3,706,784	1,355	162	669	30.6	
.....	1940	9,995	3,125,343	3,761,614	447,737	109,606	60.9	7,617,273	3,375,465	1,357	183	708	31.5	
Reading .....	1941	1,432	480,312	533,186	65,978	14,569	63.2	1,057,189	532,184	234	9	111	31.4	
.....	1940	1,443	453,346	502,217	60,884	12,615	60.3	947,023	468,862	223	..	139	38.4	
Pocahontas Region:														
Chesapeake & Ohio .....	1941	3,060	837,366	885,033	40,267	37,038	57.9	3,000,755	1,632,861	371	64	75	14.7	
.....	1940	3,046	894,502	951,620	46,710	37,672	56.0	3,185,044	1,728,754	394	43	87	16.6	
Norfolk & Western .....	1941	2,169	736,360	784,991	49,553	33,709	58.9	2,723,855	1,431,537	303	15	27	7.8	
.....	1940	2,169	740,140	788,021	52,802	29,970	57.4	2,552,800	1,365,222	291	30	31	8.8	
Southern Region:														
Atlantic Coast Line .....	1941	5,073	817,658	836,726	11,521	18,160	59.9	1,135,040	411,548	290	4	40	12.0	
.....	1940	5,078	718,864	728,284	10,499	15,001	61.4	886,345	297,493	277	7	42	12.9	
Central of Georgia †.....	1941	1,831	286,879	288,986	4,401	6,432	69.8	370,366	145,430	94	..	27	22.3	
.....	1940	1,838	263,797	267,352	4,108	5,284	68.4	308,942	119,623	109	..	21	17.4	
Illinois Central (incl. Y. & M. V.) .....	1941	6,557	1,396,664	1,401,439	25,549	41,122	61.7	2,744,003	1,167,059	559	16	195	25.3	
.....	1940	6,568	1,499,164	1,513,953	31,079	39,727	60.2	2,742,083	1,182,960	611	33	159	19.8	
Louisville & Nashville .....	1941	4,862	1,277,974	1,385,661	38,030	31,684	60.5	2,243,887	1,079,603	372	31	67	14.3	
.....	1940	4,862	1,298,990	1,412,962	40,754	29,043	59.3	2,101,107	1,017,905	395	2	106	21.1	
Seaboard Air Line *.....	1941	4,298	739,898	767,164	5,890	18,051	60.8	1,141,083	421,111	257	1	43	14.3	
.....	1940	4,301	665,011	689,038	5,883	15,602	62.8	951,024	343,887	228	6	60	20.4	
Southern .....	1941	6,521	1,618,109	1,645,759	25,112	37,360	66.3	2,232,355	921,057	496	..	137	21.6	
.....	1940	6,568	1,451,811	1,476,354	23,219	30,388	63.8	1,852,478	741,166	492	2	151	23.4	
Northwestern Region:														
Chi. & North Western †.....	1941	8,316	886,966	917,846	19,372	25,982	62.6	1,682,383	649,550	309	36	256	42.6	
.....	1940	8,324	897,723	927,037	23,295	27,725	63.4	1,528,601	582,504	327	50	255	40.3	
Chicago Great Western †.....	1941	1,447	273,883	276,281	5,087	7,978	62.0	512,290	186,988	74	1	12	13.8	
.....	1940	1,447	270,970	272,543	5,819	7,262	60.4	473,199	172,450	67	..	19	22.1	
Chi., Milw., St. P. & Pac.†.....	1941	10,847	1,300,734	1,359,454	47,867	37,921	61.5	2,488,629	1,019,825	440	75	115	18.3	
.....	1940	10,882	1,292,123	1,347,337	52,523	34,592	61.4	2,268,377	931,353	432	70	157	23.8	
Chi., St. P., Minneap. & Om.†.....	1941	1,618	219,651	230,710	10,120	5,166	64.7	323,855	129,828	100	17	17	12.7	
.....	1940	1,619	236,480	248,683	12,732	5,235	63.3	336,130	136,444	109	8	12	9.3	
Great Northern .....	1941	7,970	874,764	867,378	27,085	26,236	63.5	1,739,483	695,206	334	60	136	25.7	
.....	1940	7,974	737,649	729,382	23,607	22,013	61.5	1,472,708	575,925	306	77	150	28.1	
Minneap., St. P. & S. St. M.†.....	1941	4,247	402,641	408,393	4,441	9,310	65.6	566,351	233,935	110	1	12	9.8	
.....	1940	4,261	392,361	398,873	4,350	8,591	65.5	512,610	208,773	115	..	23	16.7	
Northern Pacific .....	1941	6,422	698,595	738,515	43,929	23,443	69.3	1,424,977	612,932	327	39	78	17.6	
.....	1940	6,423	631,903	661,262	35,495	19,638	68.3	1,199,167	514,820	330	23	93	20.9	
Central Western Region:														
Alton .....	1941	915	211,690	231,277	992	4,713	63.1	289,604	110,212	66	10	5	6.2	
.....	1940	914	211,752	223,209	1,415	4,177	59.3	281,719	105,664	67	7	13	14.9	
Atch., Top. & St. Fe (incl. G. & S. F. & P. & S. F.) .....	1941	13,431	2,048,095	2,248,008	117,934	57,318	60.9	3,750,945	1,247,650	603	68	165	19.7	
.....	1940	13,421	1,756,162	1,878,0										

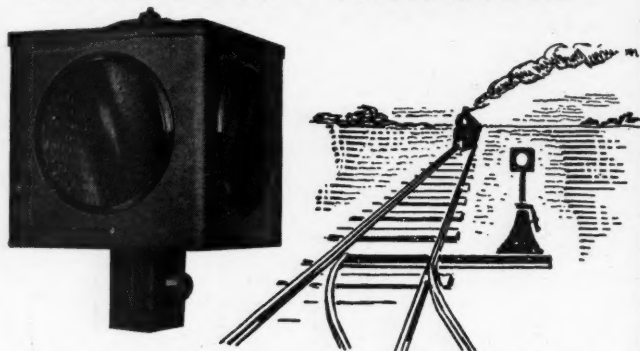


## Items for the Month of January, 1941, Compared with January, 1940

Region, road, and year	Number of freight cars on line			Per cent un-service-able	Gross ton-miles per train-hour, excluding locomotives and tenders	Gross ton-miles per train-mile, excluding locomotives and tenders	Net ton-miles per train-mile	Net ton-miles per loaded car-mile	Net ton-miles per car-day	Car-miles per car-day	Net ton-miles per mile of road per day	Pounds of coal per 1,000 gross ton-miles, including locomotives and tenders	Loco-motive miles per locomotive-day	
	Home	Foreign	Total											
New England Region:														
Boston & Albany .....	1941	743	5,267	6,010	1.2	20,438	1,224	447	20.8	345	24.8	6,057	179	69.1
.....	1940	930	5,137	6,067	2.0	20,319	1,214	431	20.8	340	25.5	5,535	170	65.1
Boston & Maine .....	1941	4,128	9,896	14,024	1.9	27,400	1,986	754	22.2	570	38.3	3,961	107	79.6
.....	1940	5,125	7,141	12,266	5.1	26,651	1,898	713	21.9	551	37.7	3,675	114	72.2
N. Y., New H. & Hartf.†.....	1941	5,859	15,458	21,317	4.3	27,740	1,956	747	21.2	458	32.2	5,038	118	70.8
.....	1940	6,057	11,979	18,036	3.2	28,345	1,890	705	21.1	467	34.1	4,467	119	68.5
Great Lakes Region:														
Delaware & Hudson .....	1941	7,152	5,226	12,378	4.2	35,525	2,317	1,098	31.0	757	38.4	10,803	121	47.2
.....	1940	7,276	3,619	10,895	3.6	31,739	2,089	1,001	31.1	754	38.7	9,558	130	53.1
Del., Lack. & Western .....	1941	9,941	7,520	17,461	4.6	38,091	2,206	903	24.4	637	38.3	10,982	137	80.6
.....	1940	10,210	7,652	17,862	7.5	35,403	2,071	849	25.5	603	36.6	11,208	155	87.1
Erie (incl. Chi. & Erie)†.....	1941	13,597	17,642	31,239	2.6	45,669	2,663	1,084	24.7	836	50.0	11,120	104	69.1
.....	1940	14,479	14,316	28,795	3.3	42,111	2,576	1,034	25.2	789	48.3	10,092	116	66.9
Grand Trunk Western .....	1941	3,670	7,929	11,599	6.0	35,529	1,865	659	22.0	475	34.9	5,581	96	95.4
.....	1940	4,160	6,400	10,500	7.7	33,005	1,704	607	22.5	487	35.5	5,020	108	92.6
Lehigh Valley .....	1941	8,087	11,597	19,684	1.5	46,084	2,422	1,041	26.9	626	34.9	9,702	117	87.4
.....	1940	8,822	12,807	21,629	2.4	45,326	2,491	1,063	27.8	568	32.3	9,384	124	72.8
New York Central .....	1941	76,532	62,924	139,456	8.4	38,785	2,333	990	28.9	697	39.9	9,195	107	89.3
.....	1940	74,509	65,038	139,547	12.7	35,168	2,182	914	29.5	619	36.3	8,278	118	89.3
N. Y., Chicago & St. Louis.....	1941	5,733	9,453	15,186	2.6	42,605	2,310	901	24.1	1,134	73.0	10,077	92	104.4
.....	1940	6,028	8,881	14,909	3.1	35,721	1,979	760	23.9	1,010	66.8	8,858	108	108.7
Pere Marquette .....	1941	7,667	8,064	15,731	3.2	31,547	1,818	688	24.4	562	37.8	4,291	102	92.8
.....	1940	7,899	7,596	15,495	2.6	28,945	1,723	647	24.9	532	35.8	3,891	106	89.3
Pittsburgh & Lake Erie .....	1941	10,600	5,027	15,627	13.5	42,674	3,304	1,833	46.3	316	11.2	22,239	100	52.5
.....	1940	8,569	8,094	16,663	33.2	42,765	3,262	1,818	48.6	279	9.8	20,612	108	44.2
Wabash* .....	1941	10,318	10,914	21,232	2.0	39,958	1,992	739	22.4	684	46.9	6,031	122	81.7
.....	1940	10,950	11,000	21,950	9.8	34,966	1,800	654	22.3	586	41.4	5,395	143	81.8
Central Eastern Region:														
Baltimore & Ohio .....	1941	50,353	29,427	79,780	5.3	29,214	2,169	981	31.5	672	34.5	8,438	154	68.3
.....	1940	52,310	26,410	78,720	5.4	27,270	2,081	948	32.3	615	31.3	7,697	165	63.1
Central of New Jersey†.....	1941	6,362	12,260	18,622	7.6	28,972	2,182	1,087	34.5	348	16.1	9,556	143	74.1
.....	1940	9,632	12,728	22,360	22.6	29,633	2,349	1,159	36.8	301	14.0	9,911	144	68.0
Chicago & Eastern Ill.....	1941	2,824	3,301	6,125	5.9	31,041	1,735	759	27.7	762	41.9	4,954	134	72.0
.....	1940	2,819	3,459	6,278	4.4	26,517	1,583	686	27.8	673	37.1	4,474	133	71.3
Elgin, Joliet & Eastern.....	1941	8,908	8,564	17,472	3.6	16,665	2,103	1,024	39.3	244	11.0	10,690	134	85.0
.....	1940	8,475	6,857	15,332	4.4	16,369	1,969	969	39.4	249	10.9	9,574	146	79.4
Long Island .....	1941	120	3,327	3,447	0.8	5,600	744	291	29.6	75	4.9	665	355	45.4
.....	1940	131	3,217	3,348	1.1	5,654	793	325	32.9	89	5.3	733	380	48.2
Pennsylvania System .....	1941	175,756	59,391	235,147	14.3	37,334	2,604	1,144	30.0	510	27.7	12,005	120	72.6
.....	1940	187,525	59,687	247,212	15.0	35,080	2,485	1,101	30.8	440	23.5	10,894	134	66.9
Reading .....	1941	21,399	16,177	37,576	11.9	28,214	2,212	1,113	36.5	471	20.4	11,988	140	64.6
.....	1940	23,710	14,956	38,666	19.3	26,689	2,100	1,040	37.2	388	17.3	10,481	152	56.9
Pocahontas Region:														
Chesapeake & Ohio .....	1941	45,138	9,769	54,907	1.8	51,793	3,609	1,964	44.1	946	37.1	17,213	84	65.2
.....	1940	41,263	10,013	51,276	2.4	49,022	3,599	1,953	45.9	1,026	39.9	18,308	93	69.0
Norfolk & Western .....	1941	39,073	6,402	45,475	2.1	57,683	3,744	1,967	42.5	977	39.1	21,290	96	84.0
.....	1940	36,144	4,944	41,088	2.5	52,579	3,495	1,869	45.6	1,024	39.1	20,304	107	83.7
Southern Region:														
Atlantic Coast Line .....	1941	13,523	10,572	24,095	13.1	23,955	1,392	505	22.7	551	40.5	2,617	115	90.1
.....	1940	14,378	8,294	22,672	17.1	22,540	1,236	415	19.8	412	33.8	1,890	123	77.8
Central of Georgia†.....	1941	4,303	3,773	8,076	2.6	25,493	1,296	509	22.6	570	36.1	2,562	126	84.5
.....	1940	4,730	2,572	7,302	2.1	23,085	1,181	457	22.6	520	33.5	2,099	137	78.6
Illinois Central (incl. Y. & M. V.) .....	1941	28,538	16,839	45,377	2.1	32,641	1,993	848	28.4	820	46.8	5,742	138	64.1
.....	1940	27,113	21,023	48,136	3.4	28,847	1,850	798	29.8	833	46.5	5,810	158	66.5
Louisville & Nashville .....	1941	35,394	11,226	46,620	3.7	27,865	1,758	846	34.1	742	36.0	7,163	128	104.8
.....	1940	32,542	11,844	44,386	12.5	24,539	1,619	784	35.0	716	34.4	6,754	154	97.9
Seaboard Air Line*.....	1941	11,332	9,726	21,058	2.6	26,483	1,569	579	23.3	650	45.9	3,161	128	92.2
.....	1940	11,604	7,347	18,951	4.2	24,674	1,457	527	22.0	582	42.1	2,579	137	83.0
Southern .....	1941	22,870	22,363	45,233	8.7	23,525	1,392	574	24.7	672	41.1	4,556	148	89.2
.....	1940	22,200	19,102	41,302	6.5	21,757	1,288	515	24.4	583	37.5	3,640	161	78.4
Northwestern Region:														
Chi. & North Western†.....	1941	31,209	21,367	52,576	5.7	29,763	1,939	749	25.0	369	23.6	2,520	134	55.1
.....	1940	32,468	21,071	53,539	11.7	26,397	1,756	669	24.6	351	22.6	2,257	147	50.8
Chicago Great Western†.....	1941	2,041	3,535	5,576	1.1	34,244	1,874	684	23.4	1,092	75.1	4,169	129	112.7
.....	1940	2,192	3,697	5,889	1.7	30,614	1,748	637	23.7	974	67.9	3,844	147	110.8
Chi., Milw., St. P. & Pac.†.....	1941	41,099	19,634	60,733	2.9	31,686	1,921	787	26.9	539	32.6	3,033	129	78.6
.....	1940	42,986	19,929	62,915	2.3	27,894	1,767	726	26.9	482	29.2	2,761	141	74.9
Chi., St. P., Minneap. & Om.....	1941	2,152	5,699	7,851	5.9	20,058	1,487	596	25.1	521	32.1	2,588	127	62.7
.....	1940	3,713	5,719	9,432	6.2	18,938	1,444	586	26.1	500	30.3	2,719	129	69.8
Great Northern .....	1941	32,904	9,745	42,649	3.8	32,655	1,997	798	26.5	532	31.6	2,814	124	59.5
.....	1940	33,576	8,021	41,597	6.1	31,070	2,005	784	26.2	450	28.0	2,330	127	49.7
Minneap., St. P. & S. St. M.†.....	1941	11,710	4,692	16,402	4.0	24,177	1,411	583	25.1	466	28.3	1,777	116	110.1
.....	1940	11,942	3,933	15,875	4.9	22,111	1,308	533	24.3	428	26.9	1,581	123	96.7
Northern Pacific .....	1941	27,639	6,011	33,650	6.4	34,130	2,054	883	26.1	596	32.9	3,079	142	62.1
.....	1940	29,189	5,182	34,371	9.1	29,865	1,905	818	26.2	482	26.9	2,586	157	55.5
Central Western Region:														
Alton .....	1941	1,466	5,396	6,862	4.9	36,314	1,379	525	23.4	534	36.2	3,886	149	98.7
.....	1940	1,518	5,374	6,892	6.4	31,421	1,344	504	25.3	481	32.0	3,729	159	88.8



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